**SPAWAR
Systems Center
San Diego**

TECHNICAL DOCUMENT 3102
February 2000

Accomplishment Report
for Fiscal Year 1999

SSC San Diego C^{4}I Programs Office Philadelphia

SSC San Diego

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Accomplishment Report for Fiscal Year 1999

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**SPAWAR
Systems Center
San Diego**

SSC San Diego
San Diego, CA 92152–5001

ADMINISTRATIVE INFORMATION

SB

TABLE OF CONTENTS

TABLE OF CONTENTS continued

National Imagery & Mapping Agency Support Office

Glossary of Acronyms

List of Figures

List of Tables

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**Systems Center
San Diego
C⁴I Programs Office
Philadelphia**

INTRODUCTION

Space and Naval Warfare Systems Center (SSC) San Diego C⁴I Programs Office Philadelphia, formerly designated the SPAWARSYSCEN San Diego Detachment Philadelphia, was established in November 1998 as an integral unit of SSC San Diego Command and Intelligence Systems Division (Code D42). For a map of the location, see Figure 1, Philadelphia Area, and see Figure 2, Naval Support Station Philadelphia (NSSP) Buildings, for a diagram of the facilities.

SSC San Diego C⁴I Programs Office Philadelphia is responsible for a program of development, in-service engineering, procurement, installation support, configuration control and integrated logistics support for mission planning systems, electronic photographic processing systems, and imagery archiving systems afloat and ashore worldwide. During fiscal year 1999 (FY99), SSC San Diego C⁴I Programs Office Philadelphia provided technical support to:

◆ Commander, Naval Air Systems Command
   ❖ Program Executive Officer, Cruise Missiles Project and Unmanned Aerial Vehicles Joint Project Office (PEO(CU))
     ◆ Command and Control Systems Program Office (PMA-281)
   ❖ Program Executive Officer, Tactical Aircraft Programs Office (PEO-T)
     ◆ Tactical Aircraft Mission Planning System Program Office (PMA-233)
     ◆ F-14 Program Office (PMA-241)
◆ Naval Electronic Logistics Office (NELO)
◆ Commander, Naval Sea Systems Command
   ❖ Aircraft Carrier Program Office (PMS-312)
   ❖ Amphibious Warfare Program Office (PMS-377)
◆ National Imagery and Mapping Agency (NIMA)
◆ Joint, service, and allied commands and program offices.

Directed by a civilian manager, SSC San Diego C⁴I Programs Office Philadelphia has a staff of sixty-two civil service employees with various disciplines and skills, including multi-disciplinary engineers, computer specialists, electronics and engineering technicians, logisticians, and management support personnel. Customer satisfaction based upon Total Quality Management (TQM) and the Quality Process is SSC San Diego C⁴I Programs Office Philadelphia's principal goal and criterion of achievement. SSC San Diego C⁴I Programs Office Philadelphia's efforts are supplemented by one hundred and sixty-five contractor engineering and technical support personnel.

SSC San Diego C⁴I Programs Office Philadelphia's internal structure is depicted in its Organizational Chart, Figure 3. Principles of Operation, Figure 4, graphically illustrates SSC San Diego C⁴I Programs Office Philadelphia's commitment to customer satisfaction.

SSC SAN DIEGO C⁴I PROGRAMS OFFICE PHILADELPHIA LOCATION AND FACILITIES

Location:

SSC San Diego C⁴I Programs Office Philadelphia is located in Buildings 2 and 7, Naval Support Station Philadelphia (NSSP) compound, 700 Robbins Avenue, Philadelphia, Pennsylvania. NSSP is easily accessible by public transportation and to several major highways, which include the Pennsylvania and New Jersey turnpikes, Interstate 95, and US Route 1. The Philadelphia International Airport is less than thirty minutes south on I-95. Rail service is available through either the Philadelphia or Trenton, New Jersey stations.

Figure 1. Philadelphia Area

Facilities:

In FY99, SSC San Diego C⁴I Programs Office Philadelphia expanded its administrative, laboratory and warehouse facilities. In Building 2, SSC San Diego C⁴I Programs Office Philadelphia occupies 38,889 square feet of administrative and fleet support laboratory space. The fleet support laboratory contains the Strike Interface Test Facility (SITF), a complex of fleet configured and supported tactical mission planning and imagery support systems; project technical analysis and

Figure 2. Naval Support Station Philadelphia Buildings

consolidated help desks; a systems support training area and an integration area. The laboratory also provides Secure Internet Protocol Router Network (SIPRNET) and Joint Worldwide Intelligence Communications System (JWICS) access and contains three fully accredited security areas consisting of a Sensitive Compartmented Information Facility (SCIF) and two Special Access Program (SAP) rooms. Building 2 also houses the administrative, engineering, and technical support areas.

SSC San Diego
C⁴I Programs Office
Philadelphia

Francis D. Donaghy

**Fred Wahler
Manager**

**Head, Administrative
Support Office**

Deputy: Barbara Wiley
Bruce Heath
Wayne Lombardo
Gloria Rufus

Rhea Feldman
Eileen Nikander
Margaret Fagan

**Betty Kriegel
Adminstrative
Assistant**

**Dennis Rozanski
Head
Cruise Missile Command
& Control Systems
Support Office**

Deputy: Bill Nork
Dennis Alexander
Kenneth Chung
Mark Cunningham
Jim Engelke
Allan Gaidis
Steve Hoshowsky
Jim Kitts
Stephen Kubicki
Ted Morrison
Bohdan Sobkiw
Jim Steib
Ed Zantek
Bryan Grebis
Jim Barnes
Frank Davies
Joe DiPardo
Dean Kralle

**Steve Fox
Head
Naval Mission
Planning Systems
Support Office**

Deputy: Karen
Levine
Edward Dolecki
Paul Meisinger
Dennis Klinger
Nhan Nguyen
Christopher LaBohne
Craig Doster
Judy Jolly
Beth Ann Miles
John Sheplock
Michael Slough
Paul Steinbacher
Chuck Storicks
Mary Williams
Timothy Boyce
J.C. Fitzgerald
Dave Salmon
Bob Grant
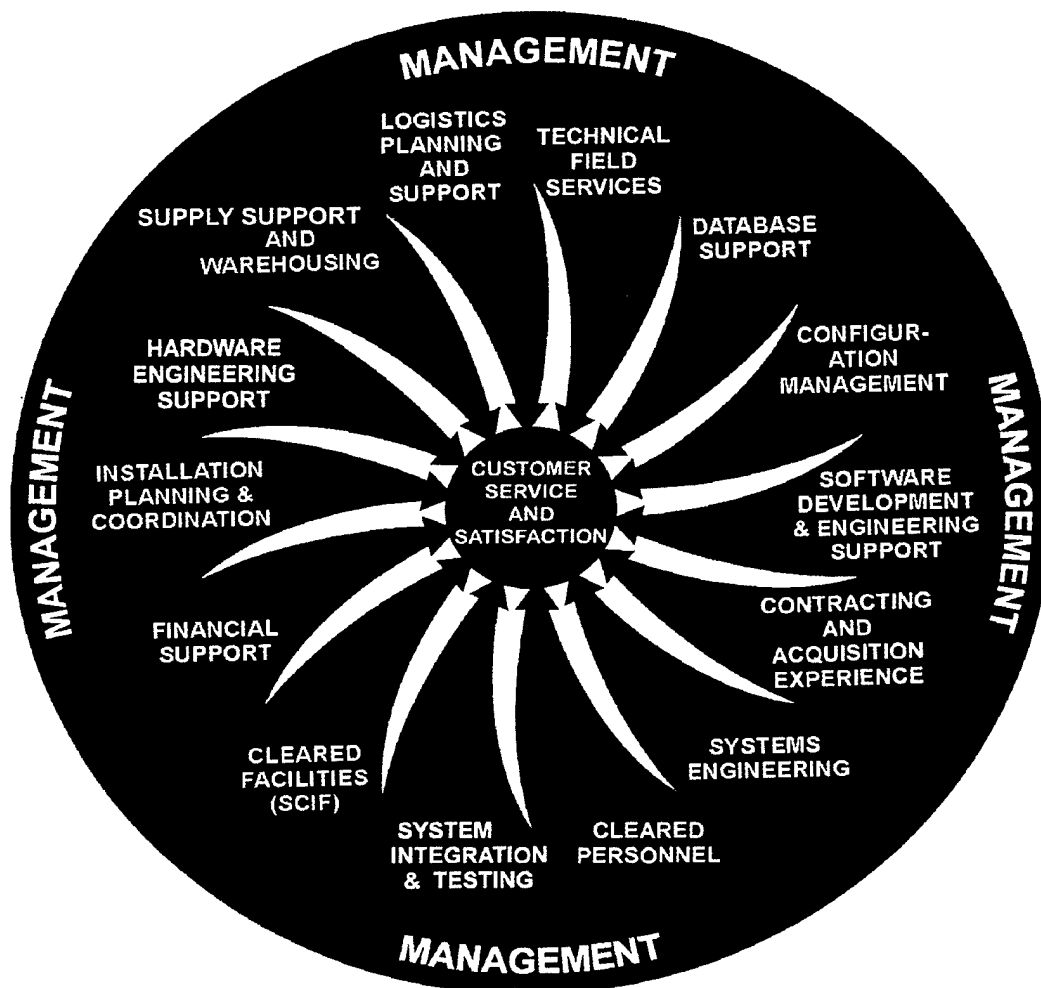
**Tim Urbanski
Head
Imagery Support
Office**

Deputy: Vincent
DiCristofaro
Anthony Brancato
Dennis Lloyd
Eddie Smith
Charles Soule

**Vivian DiCristofaro
Head
National Imagery &
Mapping Agency
Support Office**

Deputy: Frank Greco
Joel Cohen
Lou DiGirolamo
Robert Flipse
Robert Mullen
Robert Overholt
Norbert Reis
Peter DiPasquale

Figure 3.
Organizational Chart

**Figure 4. Principles of Operation
for SSC San Diego
C⁴I Programs Office
Philadelphia**

VISITS

Mr. Rod Smith, Head, Command & Control Department, Dr. R. Jaffee, Head, Command & Intelligence Systems Division, and Fred Wahler observe Kevin O'Malley as he explains the new Strike Interface Test Facility.

French staff Jean Yves Bouillaud, Thierry Tremeau, and Thierry Leal receive TAMPS Maintenance and Operator training from Beth Ann Miles, Fran Brown, and J.C. Fitzgerald in support of the TAMPS installation onboard the French Navy aircraft carrier, Charles de Gaulle.

AWARDS AND RECOGNITION

Steve Fox receives his Exemplary Achievement Award from Fred Wahler, Manager, SSC San Diego C⁴I Programs Office.

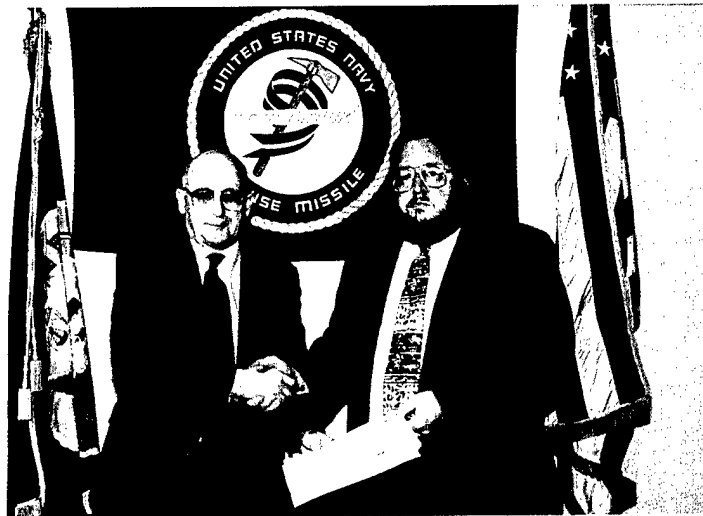*Karen Levine receives her Exemplary Achievement Award from Fred Wahler.*

AWARDS AND RECOGNITION

Dr. R. Jaffee and Fred Wahler present Joe DiPardo with the Combined Federal Campaign Coordinator's Award.

Fred Wahler presents a Letter of Appreciation to Steve Fox from Captain T. L. Spilman for outstanding performance and professionalism as a member of the Level I Leadership Team in service to TAMPS.

AWARDS AND RECOGNITION

Fred Wahler presents a Letter of Appreciation to Dennis Rozanski for superior service and support to Afloat Planning Systems, Pacific Operations Support Division, Camp H. M. Smith, Hawaii.

Fred Wahler presents a Letter of Appreciation to Stephen Kubicki, Jr. for superior service and support to Afloat Planning Systems, Pacific Operations Support Division, Camp H. M. Smith, Hawaii.

AWARDS AND RECOGNITION

Career Service Awards

Fred Wahler receives his 35 year Career Service Award from Mr. Rod Smith and Dr. R. Jaffee.

Dennis Rozanski receives his 30 year Career Service Award from Fred Wahler.

Bob Flipse receives his 25 year Career Service Award from Fred Wahler.

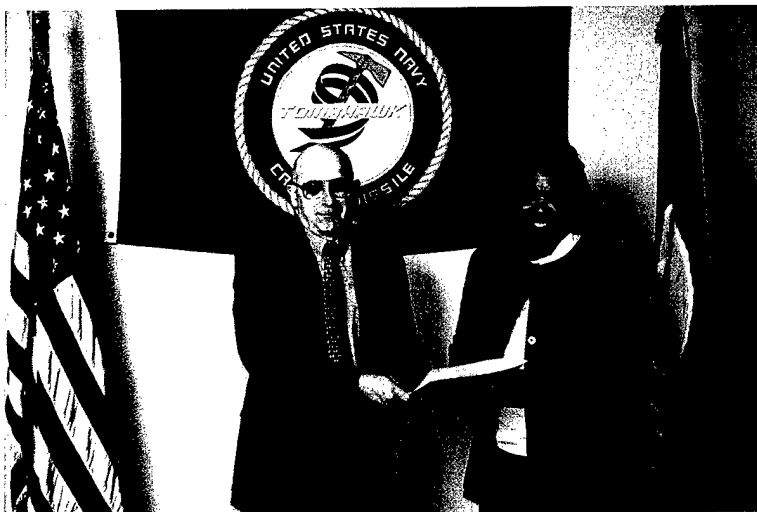## AWARDS AND RECOGNITION

Career Service Awards

Jim Steib receives his 25 year Career Service Award from Fred Wahler.

Ed Zantek receives his 25 year Career Service Award from Fred Wahler.

Gloria Rufus receives her 20 year Career Service Award from Fred Wahler.

AWARDS AND RECOGNITION

Margaret Fagan receives her retirement certificate for 22 years of service from Fred Wahler and F.D. Donaghy.
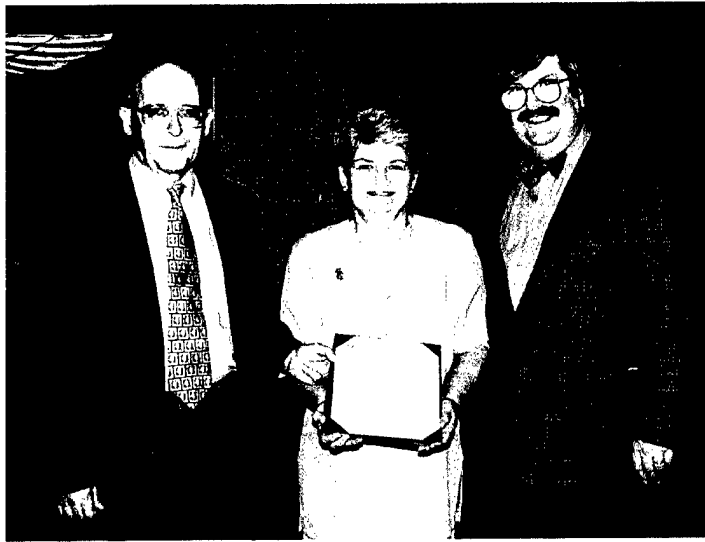
Gloria Rufus receives her retirement certificate and plaque from Fred Wahler as Mr. Rod Smith and Dr. R. Jaffee observe.

Gloria Rufus receives her retirement certificate for 21 years of service from Fred Wahler and F.D. Donaghy.

AWARDS AND RECOGNITION

Eileen Nikander receives her Bravo Zulu Service Award from Mr. Rod Smith and Dr. R. Jaffee as Fred Wahler observes.
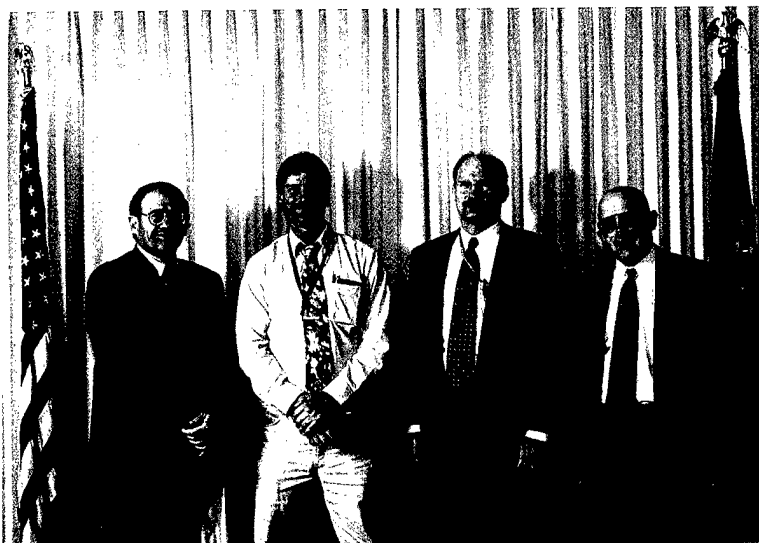
Jim Engelke receives his Bravo Zulu Service Award from Mr. Rod Smith and Dr. R. Jaffee as Fred Wahler observes.
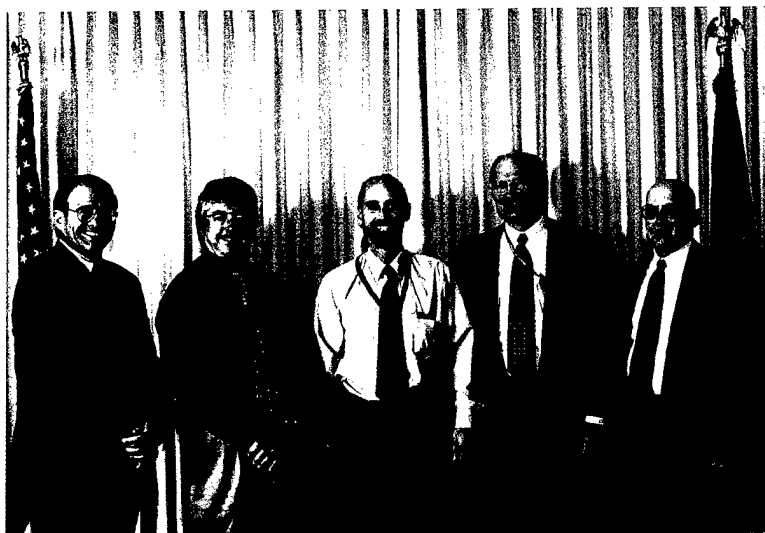
Dennis Lloyd and Charles Soule receive their Bravo Zulu Service Awards from Mr. Rod Smith and Dr. R. Jaffee as Fred Wahler observes.

AWARDS AND RECOGNITION

Frank Greco receives his Bravo Zulu Service Award from Fred Wahler and Vivian DiCristofaro.

Nhan Nyugen receives his Bravo Zulu Service Award from Fred Wahler and Karen Levine.

Lou DiGirolamo receives his Bravo Zulu Service Award from Fred Wahler and Vivian DiCristofaro.

AWARDS AND RECOGNITION

Fred Wahler presents Karen Levine with her promotion to DP-3.

Fred Wahler presents Eddie Smith with his promotion to DT-3.

Fred Wahler presents Dean Kralle with his promotion to DT-3.

Fred Wahler presents Betty Kriegel with her promotion to DG-2.

BRING OUR CHILDREN TO WORK DAY

On April 22, 1999, the Naval Support Station, Philadelphia hosted "Bring Our Children to Work Day." Ranging in age from seven to fifteen, the children accompanied their parents or guardians to experience the realities of the work world and gain insight on how various careers contribute to the workforce. The children sat with their parents at the parent's workstation to observe daily job activities.

From left to right:
Front row: Samantha Wagner, Eric Allan Bachman, Taylor Marie Bachman,
                Scott Gaylord and Zachary Feldman.
Middle row: Brittany Shields, Dayna Allen, Nicole Giberson, Patrick Giberson,
                Timmy Kriegel, Becky Kralle, Keith Wagner and Mark Heath.
Last row: Nick Lombardo, Lauren DiCristofaro, Sara Egan, Karen Wiley,
                Jessica Tranekener (D. Alexander) and Jeremy Cunningham.

ADMINISTRATIVE SUPPORT OFFICE STAFF

Barbara Wiley,
Deputy,
Program Analyst
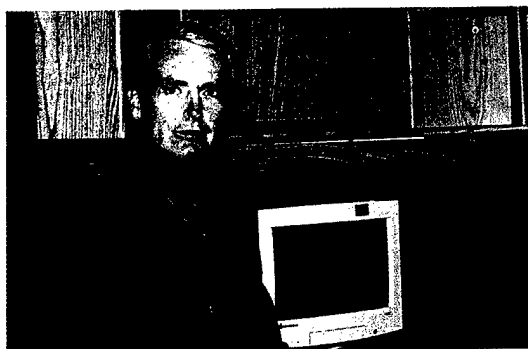
Bruce Heath, Security
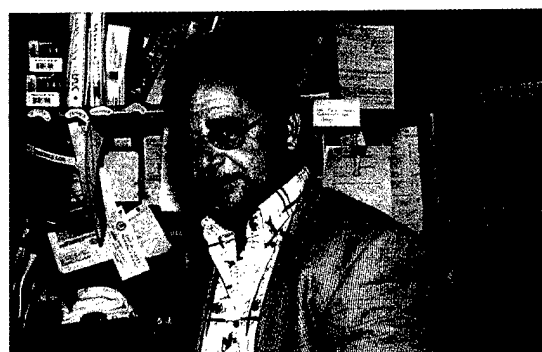
Wayne Lombardo, Facilities and Safety

Gloria Rufus, Budget

Rhea Feldman, Acquisition Specialist

Eileen Nikander, Acquisition Specialist

Margaret Fagan, Program Analyst

ADMINISTRATIVE AND ACQUISITION SUPPORT

SSC San Diego C⁴I Programs Office Philadelphia's Total Obligating Authority (TOA) increased by 25 percent to $72.4 million in FY99. Seventy-five percent of these funds was from Navy sources; the Department of Defense (DoD) and other service's funds comprised the balance. Acquisition of materials and services totaled $61.8 million. Although the total number of purchase requisitions decreased, the actual number of requisition stubs increased by over 27 percent. Prompt payment certification items improved by over 37 percent during the period. The transition from the American Express International Merchant Purchase Authorization Card (IMPAC) credit card to the Citibank Master Card was accompanied by a 50-percent increase in the use of that type of transaction.

Travel orders were up by 8 percent, and 700 outgoing messages were generated in response to client requirements or inquiries. FedEx bills of lading increased by 28 percent, and 2,336 shipping documents were processed.

As a result of this increased acquisition activity, SSC San Diego C⁴I Programs Office Philadelphia increased the size of its warehouse in Building 7 by 10,400 square feet. Other physical improvements, such as additional materials handling gear, security fencing, and new lighting, have enhanced the warehouse's ability to respond to the increase in acquisition and support.

SSC San Diego C⁴I Programs Office Philadelphia's administrative workload is catalogued in the table below.

Table 1. Administrative Workload FY99

Purchase requisitions	473
Requisition stubs	4375
Credit Card transactions	1441
MILSTRIPS	136
FedEx bills of lading (non-DLA)	2325
Prompt payment invoice certifications	780
Number of items on invoices certified	4265
Travel orders	1044
Correspondence	143
Training documents	145
Messages	1053
Shipping documents (DD1149)	2336
Classified documents and other media	1789
• Held	355
• Destroyed	0
• Transmitted	1434

SSC SAN DIEGO
C⁴I PROGRAMS OFFICE
PHILADELPHIA

FY99 FUNDING
BY AGENCY

TOTAL: $72,439,600

NAVY 74.8%

NIMA/JOINT 23.6%
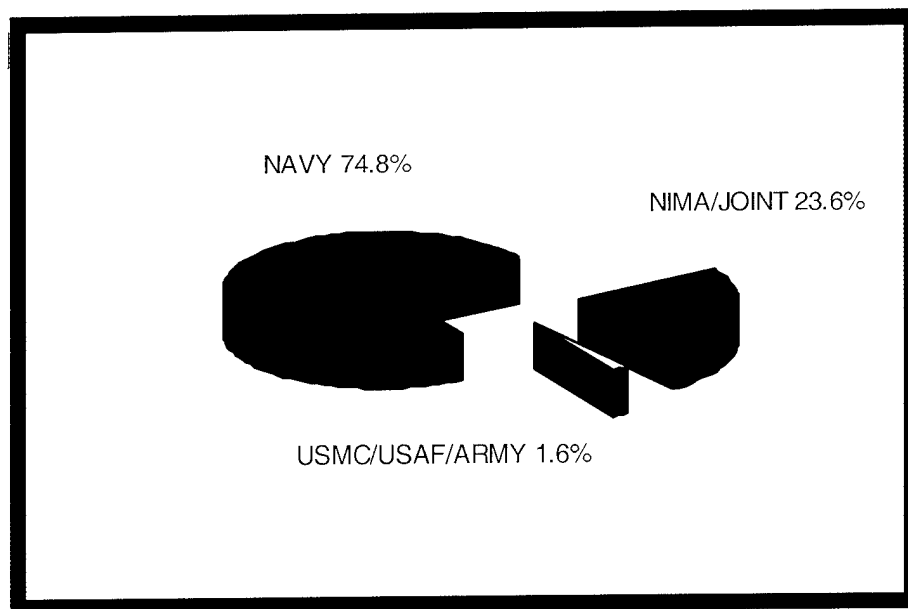
USMC/USAF/ARMY 1.6%

■ NAVY	$54,192.0K
■ NIMA/JOINT	$17,116.0K
□ USMC/USAF/ARMY	$ 1,131.6K

Figure 5. Funding By Agency

SSC SAN DIEGO
C⁴I PROGRAMS OFFICE
PHILADELPHIA

FY99 FUNDING
BY APPROPRIATION

TOTAL: $72,439,600

PROC 71.3%

R&D 13.8%

O&M 10.7%

FMS 1.0%   SCN 3.2%
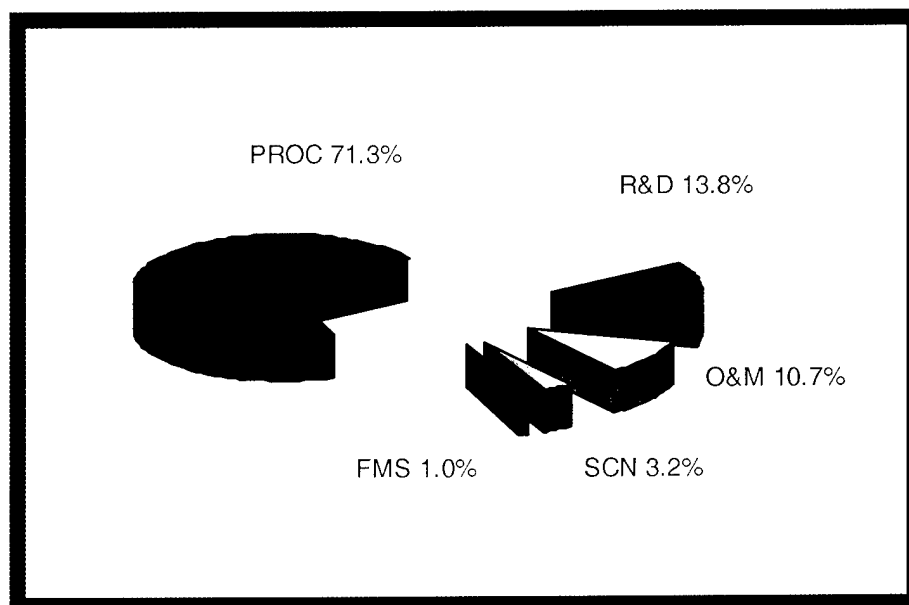
■ PROC $ 51,688.6K

■ R&D $ 9,977.6K

□ O&M $7,734.3K

▣ SCN $ 2,317.0K

■ FMS $ 722.1K

Figure 6. Funding By Appropriation

SSC SAN DIEGO
C⁴I PROGRAMS OFFICE
PHILADELPHIA

FY99 FUNDING
BY NAVY CLAIMANT

TOTAL: $54,192,000
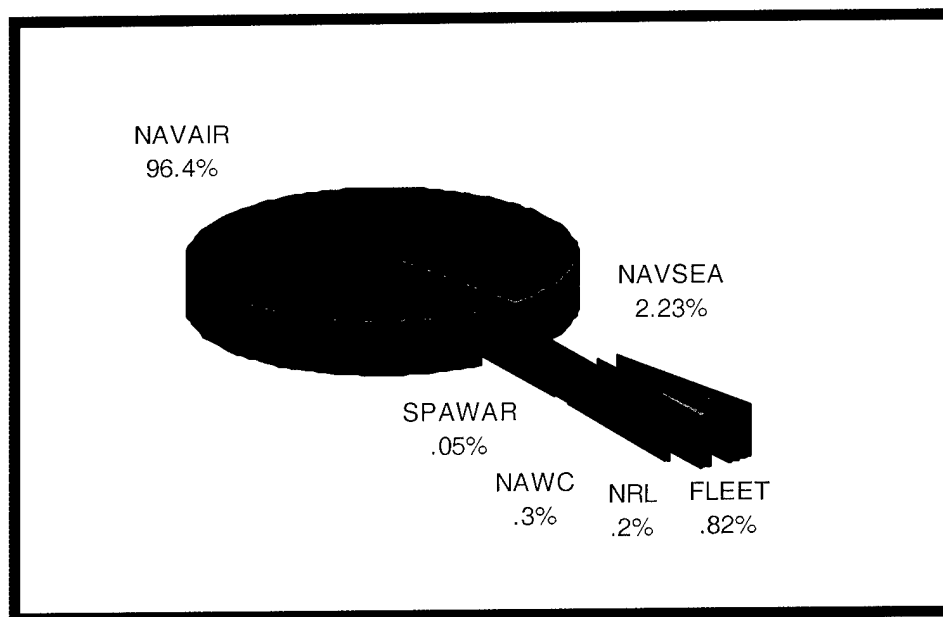
■ NAVAIR	$ 52,254.0K
■ NAVSEA	$ 1,213.0K
■ FLEET	$ 447.0K
▦ SPAWAR	$ 27.0K
■ NAWC	$ 151.0K
■ NRL	$ 100.0K

Figure 7. Funding By Navy Claimant

CONTRACTING

SSC San Diego C⁴I Programs Office Philadelphia's Total Obligating Authority (TOA) increased by 25 percent in FY99 to $72.4 million. Of the total, over $61.8 million was used in the acquisition of goods and services in support of assigned projects. The primary contracting agency utilized for these procurements was the Fleet and Industrial Supply Center (FISC), Norfolk Detachment Philadelphia. Over 66 percent of the procurement actions through FISC were acquired competitively. Significant activity under Indefinite Delivery/Indefinite Quantity (IDIQ) contracts was conducted with the Naval Inventory Control Point (NAVICP), Mechanicsburg, in support of the Naval Mission Planning Systems (NavMPS) project.

Military Standard Requisitioning and Issue Procedures (MILSTRIP) procurements decreased for general purpose material. However, the system was used to acquire high-value photographic equipment and support materials for the Imagery Support Office. Government IMPAC credit card usage increased by 50 percent. The transition from American Express to Master Card occurred without significant impact.

As the Contracting Officer's Representative (COR), SSC San Diego C⁴I Programs Office Philadelphia's personnel provided the trained and experienced administrative and technical assistance for four major multi-year engineering and technical contracts supporting its projects. Options on all four contracts were exercised during the fiscal year. The current CORs supporting these contracts are pictured below.

Rhea Feldman, Technical and Facility
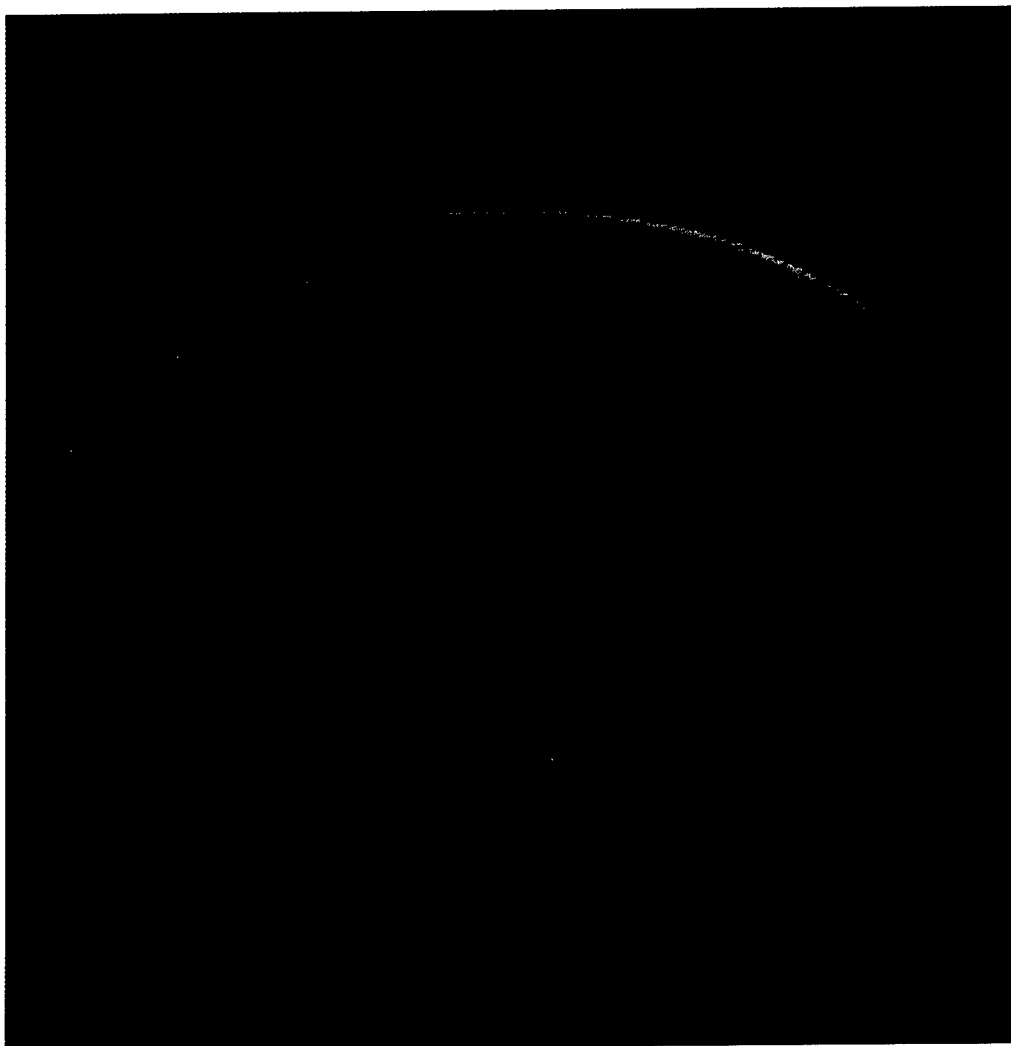Support Services

Dean Kralle, Engineering and
Repair Services

Eileen Nikander, Engineering, Fabrication
and Installation Services

Lou DiGirolamo, Engineering and
Technical Services

TECHNICAL ACCOMPLISHMENTS
# 1999

STRIKE INTERFACE TEST FACILITY

T.Boyce, Mr. Rod Smith, Dr. R. Jaffee, F. Lombrana, V. DiCristofaro, and A. Brancato observe as K. O'Malley and C. Gassert explain the configuration of the Strike Interface Test Facility.


Mr. Rod Smith and Dr. R. Jaffee observe as K. O'Malley and F. Lombrana demonstrate TAMPS.

In FY99, SSC SD C⁴I Programs Office established a Strike Interface Test Facility. This facility was designed to combine all the primary systems that are used by the mission planners aboard aircraft carriers. These systems include the Imagery Product Library (IPL), the Precision Targeting Workstation (PTW), the Digital Camera Receiving Station (DCRS), the Tomahawk Land Attack Missile (TLAM) Afloat Planning System (APS), the Launch Platform Mission Planning (LPMP) System, the Global Command and Control System-Maritime (GCCS-M), the Tactical Automated Mission Planning System (TAMPS), and the Portable Flight Planning Software (PFPS).

This unique configuration is one of the first shore-based facilities with all currently fielded equipment operating in a completely networked environment. The equipment and network connections of the lab can be readily modified to match any current or projected shipboard configuration. The Strike Interface Test Facility lab is staffed and maintained by experts in the development, installation, support, and operation of each system. In the first six months of operation, SSC SD C⁴I Programs Office has fully exercised our capabilities by providing operational procedure development, testing, training, and fleet support services for both deployed military units and developmental systems.
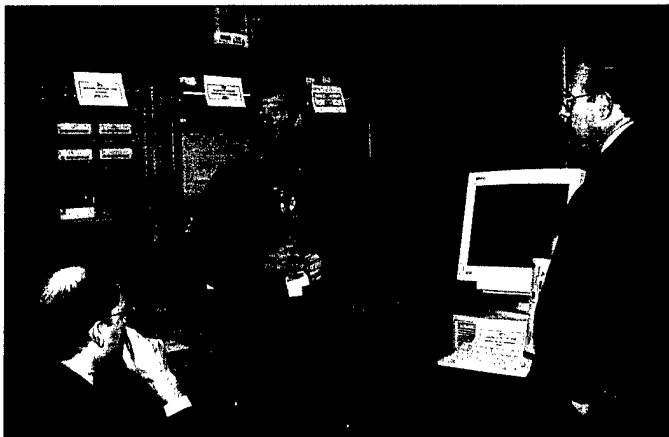
Mr. Rod Smith and Dr. R. Jaffee observe as S. Gaylord demonstrates APS and LPMP.
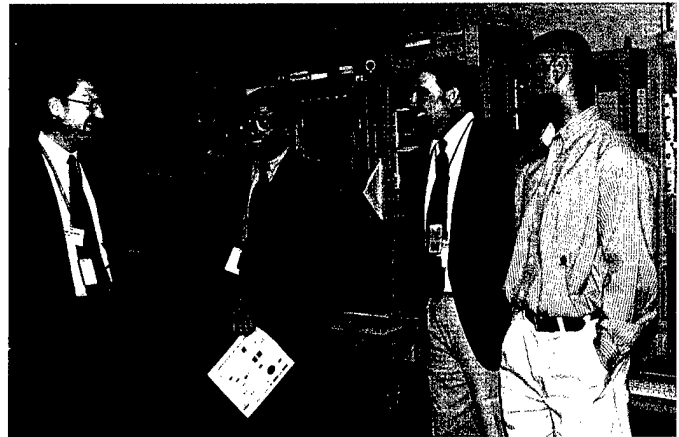
Mr. Rod Smith and Dr. R. Jaffee relax with C. Gassert and X. McDonald after completing a successful mission.

ENGINEERING & TECHNICAL SUPPORT TO PMA-281
FOR AFLOAT PLANNING SYSTEM (APS)

Role:

+ **Technical Services**
+ **Installation Planning**
+ **Testing Support**
+ **Integrated Logistics Support**

The Afloat Planning System (APS) is comprised of the computer system and applications software items that provide for the planning, distribution, and employment support of the Tomahawk Land Attack Missile (TLAM). APS will provide each Battle Force/Battle Group (BF/BG) Commander with the same functional capability as the shore-based Cruise Missile Support Activity (CMSA) for planning conventional TLAM missions. The APS can facilitate a reduction in the dependence on non-organic assets or long-haul communications for management information system data during crisis surge and/or hostile activity.

SSC San Diego C⁴I Programs Office Philadelphia's APS efforts for FY99 included coordinating and participating in the installation of hardware and/or software and testing of the APS on the following platforms:

USS Kitty Hawk (CV 63)
USS Constellation (CV 64)
USS Enterprise (CVN 65)
USS Dwight D Eisenhower (CVN 69)

Dennis Rozanski, Head,
Cruise Missile Command & Control
Systems Support Office

Bill Nork, Deputy,
Cruise Missile Command & Control
Systems Support Office

USS Theodore Roosevelt (CVN 71)
USS Abraham Lincoln (CVN 72)
USS John F Kennedy (CV 67)
USS George Washington (CVN 73)
USS John C Stennis (CVN 74)
USS Harry S Truman (CVN 75)

SSC San Diego C⁴I Programs Office Philadelphia architected, procured, assembled, and integration-tested all TAC-4 hardware installed on the above platforms.

SSC San Diego C⁴I Programs Office Philadelphia coordinated the implementation of the Y2K compliant software on all APS platforms.

SSC San Diego C⁴I Programs Office Philadelphia also installed a Launch Platform Mission Planning (LPMP) System at the Naval War College in Newport, Rhode Island. As part of the Fleet Battlelab Experiments-Echo and Foxtrot (FBE-E and FBE-F), we architected, procured, assembled, integration-tested, and installed LPMP Systems onboard the *USS John Paul Jones* (DDG-53), *USS John Young* (DD-973), and the *USS Coronado* (AGF 11).

Point of Contact:
Mr. Allan M. Gaidis, Code D4232
Tel: (215) 214-8033; DSN 442-8033
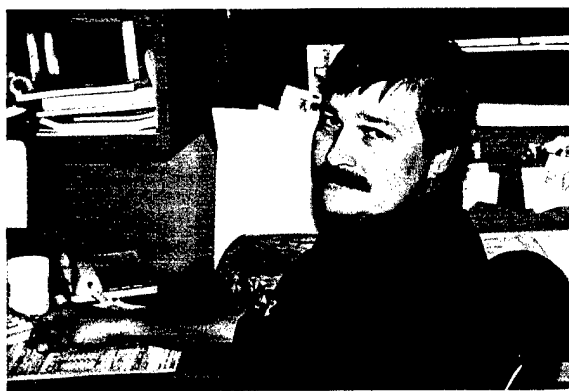FAX (215)-214-8109
Email: gaidis@spawar.navy.mil
SSC San Diego C⁴I Programs Office Philadelphia

Allan Gaidis, Installation

Jim Steib, Installation

Steve Hoshowsky, Engineering

ENGINEERING & TECHNICAL SUPPORT TO PMA-281
FOR
JOINT SERVICE IMAGERY PROCESSING SYSTEM - NAVY
(JSIPS-N)

Role:

✈ **Technical Services**
✈ **Installation Planning**
✈ **Testing Support**
✈ **Integrated Logistics Support**

The Joint Service Imagery Processing System - Navy (JSIPS-N) is a shipboard deployable, tactical digital imagery system with the capability to receive, process, store, exploit, and disseminate imagery from a variety of sources. The JSIPS-N will provide the Battle Group/Battle Force (BG/BF) Commander with enhanced intelligence support via digital processing technology and linkage of imagery with imagery support data. The JSIPS-N design is predicated upon functional allocations to, and interfaces among, existing Navy systems designed to perform functions other than JSIPS-N. In so doing, the Navy's approach to JSIPS-N maximizes the existing organic shipboard information management systems by adding new functions to these systems.

SSC San Diego C⁴I Programs Office Philadelphia's effort for FY99 included coordinating and assisting in the installation of hardware and software and testing of the JSIPS-N onboard the following platforms:

USS Carl Vinson (CVN 70)	*USS Wasp* (LHD 1)
USS Enterprise (CVN 65)	*USS Essex* (LHD 2)
USS Theodore Roosevelt (CVN 71)	*USS Kearsarge* (LHD 3)
USS Kitty Hawk (CV 63)	*USS Boxer* (LHD 4)
USS John F Kennedy (CV 67)	*USS Bataan* (LHD 5)
USS Constellation (CV 64)	*USS Bonhomme Richard* (LHD 6)
NSAWC Fallon	
NMITC	*USS Tarawa* (LHA 1)
CMSALANT	*USS Saipan* (LHA 2)
CMSAPAC	*USS Nassau* (LHA 4)
WPC	*USS Peleliu* (LHA 5)

In addition, SSC San Diego C^{4}I Programs Office Philadelphia participated in the following JSIPS-N development efforts:

- Imagery Exploitation Support System (IESS)
- National Input Segment/Dissemination Element (NIS/DE)
- Tactical Input Segment (TIS)
- JSIPS-N Concentrator Architecture (JCA)
- Image Product Library (IPL) Afloat
- Precision Targeting Workstation (PTW+)
- Color Printer Studies
- JSIPS-N/GCCS-M (IT-21) LAN Interface Architecture

SSC San Diego C^{4}I Programs Office Philadelphia redesigned, procured, fielded, and tested the Vexcel Scanning System, Phase II. Utilizing COTS hardware and software, this system provides enhanced performance, increased reliability, diminished maintainability, and lower cost. SSC San Diego C^{4}I Programs Office Philadelphia also planned the redesign of the current HP-based PTW to a Sun-based server system with NT-based PC clients.

Point of Contact:
Mr. Mark Cunningham, Code D4232MC
Tel: (215) 214-8035, DSN: 442-8035
FAX (215) 214-8109
Email: markc@spawar.nosc.mil
SSC San Diego C^{4}I Programs Office Philadelphia

Mark Cunningham, Engineering
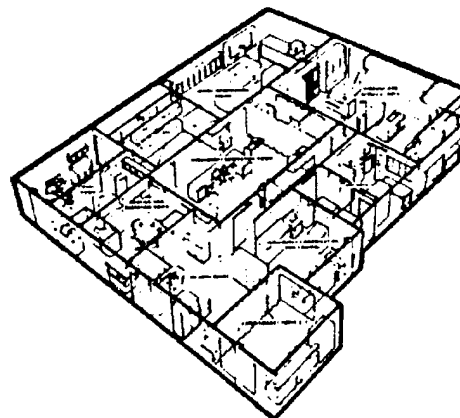
Kenneth Chung, Engineering

Ed Zantek, Installation

CARRIER INTELLIGENCE CENTER (CVIC) RECONFIGURATION

Role:
+ **Compilation and Analysis of System Data**
+ **Space Utilization and Design**
+ **Installation Planning Support**

SSC San Diego C⁴I Programs Office Philadelphia produces and updates installation guides for all the systems under its cognizance. The installation guides contain the system's Installation Control Drawings (ICD) and the parametric data necessary to prepare the Ships Installation Drawings (SID), which are required to install equipment onboard a ship. The information from these installation guides and the collected data from other systems located in the Carrier Intelligence Center (CVIC) are used to plan for the orderly addition of new equipment and the updating of existing systems.

During FY99, SSC San Diego C⁴I Programs Office Philadelphia continued to support this effort by providing technical assistance, participating in design reviews and other technical meetings, and serving as liaison with several Program Offices in all of the Systems Commands.

SSC San Diego C⁴I Programs Office Philadelphia provides planning support to PMA-281 and the Design Center for the *USS Nimitz* (CVN 68), *USS Harry S Truman* (CVN 75), and the *USS Ronald Reagan* (CVN 76). With many new systems coming aboard, our personnel are working in conjunction with the Commander, Naval Air Force, Atlantic Fleet (COMNAVAIRLANT) and the Washington Planning Center (WPC) to develop a more functional CVIC.

SSC San Diego C⁴I Programs Office Philadelphia has participated in the design of the Naval Strike Warfare Planning Center (NSWPC) integration facility. The NSWPC is used to integrate the suite of equipment planned for installation in the CVIC.

Point of Contact:
Mr. Allan M. Gaidis; Code D4232
Tel: (215)-214-8033; DSN 442-8033
FAX (215) 214-8109
Email: gaidis@spawar.navy.mil
SSC San Diego C⁴I Programs Office Philadelphia

Jim Engelke, Installation

RAPID DEPLOYMENT SUITE (RDS) Plant

Role:

➔ **Coordination of Engineering and Integration**
➔ **Installation Planning, Site Implementation,**
  Suite Light-Off and Checkout
➔ **Physical and Automated Information System**
  (AIS) Accreditation
➔ **Coordination & Security Guidance and Assistance**
➔ **On-Site Support and Upgrade Implementation**
➔ **Configuration and Uniformity Management**
➔ **Integrated Logistics Support**

The Rapid Deployment Suite (RDS) is comprised of Afloat Planning System (APS) and Joint Service Imagery Processing System-Navy (JSIPS-N) equipment housed in four standard mobile tactical shelters. The RDS is deployed as one complete, self-contained unit bringing the Tomahawk Land Attack Missile (TLAM) Tactical Mission Planning System (TMPS) capability to any Battle Force/Battle Group (BF/BG) Commander or forward deployed theater of operation. Host activities or sites provide all external communications connectivity and data transmission security safeguards.

The RDS was developed to accommodate deployment in two operating arenas, both as a fully accredited stand-alone Sensitive Compartmented Information Facility (SCIF) and as a remotely located Tactical SCIF. Construction of the RDS incorporates physical as well as some Transient Electromagnetic Pulse Emanation Standard (TEMPEST) and Electromagnetic Interference (EMI) hardening to meet applicable requirements of the Director of Central Intelligence Directive (DCID) 1/21.

Raw data is introduced to the RDS primarily via magnetic media, photography and/or hard copy, but may include external communications links for National Imagery, intelligence data, or Mission Data Update (MDU) inputs. When the RDS is deployed to an APS Operations Support Detachment (AOSD), a Joint Mobile Operational Command Center (JMOCC), or the Naval Strike and Air Warfare Center (NSAWC), Fallon, Nevada, fiber optic interface(s) can be installed connecting the RDS to the host facility. No communication transmitters or receivers other than Secure Telephone Unit-Third Generation (STU-III) and cryptographic devices incorporated in the National Input Segment (NIS), a part of JSIPS-N, are included in the present design.

To date, the RDS has been used predominantly as a training device for AOSD detachment personnel and secondarily to generate databases tailored to designated Areas of Responsibility (AOR). The RDS at NSAWC is used to integrate Tomahawk and JSIPS-N capabilities into the overall Airwing strike-training program prior to deployment. RDS #1 is staffed by AOSD Pacific personnel under the cognizance of Commander-in-Chief, U.S. Pacific Fleet (CINCPACFLT), Pearl Harbor, Hawaii, and is installed at Camp H. M. Smith, Halawa, Hawaii. RDS #2, staffed by AOSD Atlantic personnel, is installed at and is under the cognizance of Commander-in-Chief, U.S. Atlantic Fleet (CINCLANTFLT), Norfolk, Virginia. RDS #3 is located at and staffed by the Naval Strike and Air Warfare Center (NSAWC),

Fallon, Nevada. One additional and fully operational site, designated as an RDS, is permanently positioned at Commander, U.S. Fifth Fleet (COMFIFTHFLT), Manama, Bahrain, but is housed within a building, versus separate tactical shelters, because of environmental conditions.

In FY99, SSC San Diego C^{4}I Programs Office Philadelphia provided support to RDS#1 by improving facility safety in addition to enhancing administrative and operational capabilities. Early in the year, the office infrastructure was completely revamped by installing new PCs that are linked by two new and separate local area networks (LAN), one of which is classified. A new input power feed and service distribution panel, a completely refurbished spare parts storage shelter, and a modular distribution system for work-area power, telephone, and LAN connectivity were all part of administrative upgrades. At mid-year, a complete redesign of the shelter power distribution system and the replacement of the modular office access stairways incorporated major safety improvements. Later, the APS/JSIPS-N suite was upgraded with the installation of a Digital Imagery Workstation Suite, Afloat (DIWS-A) Configuration Consolidation (C^2). We applied upgrades to the Precision Targeting Workstations (PTW) that included additional memory, interface capability and incorporation of an Enhanced Sensitive Compartmented Information (SCI) Isolation Segment (ESIS). The hardware modifications were followed by a comprehensive software reload of all subsystems, System Acceptance Testing (SAT), and recertification.

For RDS#2, the issues addressed and the work performed by SSC San Diego C^{4}I Programs Office Philadelphia in FY99 ranged from Intrusion Detection System (IDS) repairs and system upgrades to planning for SCIF construction and relocation of suite hardware from the shelters to the SCIF. The SCIF and relocation effort will continue into next year. The APS/JSIPS-N suite was upgraded with the installation of a DIWS-A C^2, and the PTW was upgraded with additional memory, interface capability, and incorporation of an ESIS. The hardware modifications were followed by a complete software reload of all subsystems, SAT, and recertification.

Early in FY99 at RDS#3, SSC San Diego C^{4}I Programs Office Philadelphia was tasked to install a Tactical Input Segment (TIS), a Common High Bandwidth Data Link (CHBDL), and an Image Product Library (IPL). Engineered input power and interface modifications had to be applied to the Real Time Information to Cockpit (RTIC) shelters to accommodate this hardware installation. At mid year, a reconfiguration of the NSAWC Carrier Intelligence Center (CVIC) training classroom allowed the installation of a Vexcel scanner, Xylan switch, and the upgrade of their PTW, which included additional memory, interface capability, and incorporation of an ESIS. The reconfiguration occurred before training of the *USS Dwight D Eisenhower* (CVN 69) Airwing and accommodated compliance to the new CVN 69 APS/JSIPS-N configuration and to Information Technology for the 21st Century (IT21). Advanced planning was also conducted for the DIWS-A C^2 installation scheduled for next year.

The RDS installation at COMFIFTHFLT, Manama, Bahrain began late last year. Equipped with a complete APS/JSIPS-N system, this site is fully operational and staffed by COMFIFTHFLT personnel. The magnitude of this endeavor was greatly amplified not only by both distance and strategic operations, but also by the problems encountered with their local input power, construction techniques, and support personnel customs and practices. Overcoming the logistics of this installation proved to be challenging,

but the hardware installation and software loads were completed on time and within budget. Final personnel, operational, and security certifications are in process with expectations of an early FY00 completion.

With the exception of COMFIFTHFLT, each site was visited at least twice during the year to ensure operational and physical integrity. The objectives of site visits are to prepare for future changes and to verify the integrity of existing site parameters. Support documentation efforts and site drawing package maintenance is in continual evolution, as is the training of on-site personnel regarding logistical matters, such as plant maintenance and supply support.

Point of Contact:
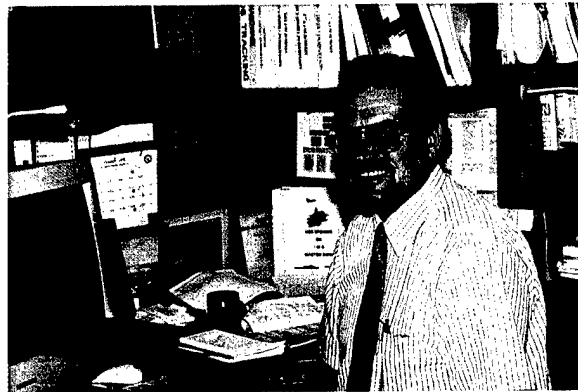**Mr. Stephen Kubicki Jr.** (RDS Team Leader)
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*Stephen Kubicki Jr.,
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John Kitano, Engineering

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LOGISTICS PLANNING SUPPORT TO PMA-281

Role:

+ **Technical Support**
+ **Maintenance Planning Support**
+ **Engineering Support**
+ **Documentation and Training**
+ **Life Cycle Support**
+ **Configuration Management**

SSC San Diego C⁴I Programs Office Philadelphia Logistics Planning has been integral in the Year 2000 (Y2K) PMA-281 and NAVAIR contingency planning during FY99. Self-assessment of Y2K compliance and contingency planning was mandated by the DoD. Y2K contingency planning falls squarely in the description of duties and roles of Logistics Planning Support to the Cruise Missile Command, Control, Computers, and Communication (C^4).

The PMA-281 Help Desk operates 24 hours per day, 7 days per week with the vigilant support of the dispatcher team. Our specialized crew has been maturing under real world operational conditions over the last several years. The Help Desk was identified by the PMA-281 Y2K contingency planners as a key focus point for Y2K technical support issues for Cruise Missile Support Activity (CMSA) and Fleet PMA-281 systems.

Use of multi-contractor Mobile Team Training (MTT) On the Job Training, innovative FedEx spare parts support, use of the help desk as technical service brokers, and the introduction of interactive technical support web-sites are helping us to keep pace with changing support demands.
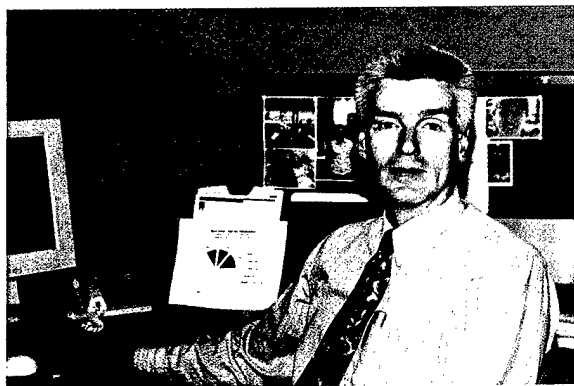
Jim Barnes, Product Support   *Dean Kralle, Product Support*
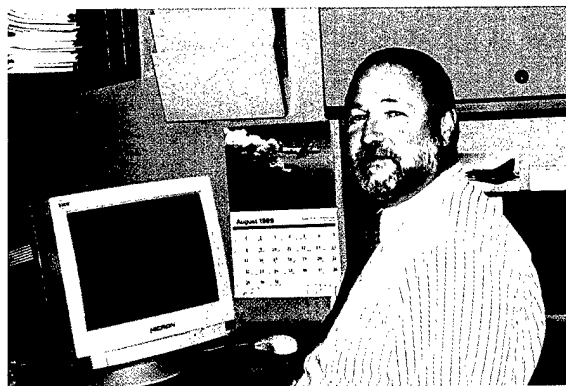
All technical documentation was converted to CD-ROM portable document files. This document collection was combined with a variety of computer-based training packages to consolidate training and documentation. The Discrepancy Lifecycle Network (DLN) client was installed as part of the Logistics Support Library (LSL).

Configuration Management (CM) improved greatly in FY99. In addition to the range of computer desktop tools and databases, Common Action Observation Points (CAOP) have allowed our CM team to observe and record the product life cycle. SSC San Diego C^{4}I Programs Office Philadelphia monitor integration actions, installations and upgrades, MTT, and maintenance and repair actions. Recent computer models have helped us to track anticipated spare parts shortages or obsolescence issues.

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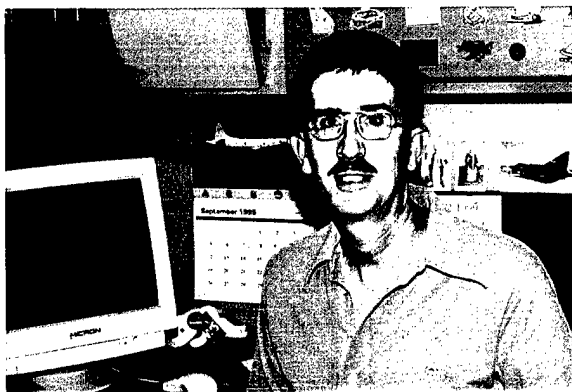Tel: (215) 214-8021, DSN: 442-8021
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Dennis Alexander, Product Support

Joe DiPardo, Product Support

Frank Davies, Product Support

Bohdan Sobkiw, Product Support

WASHINGTON PLANNING CENTER

SSC San Diego C⁴I Programs Office Philadelphia provides various Logistic Support services to the Washington Planning Center (WPC). We provide a single Point of Contact to administer and provide status for numerous procurement requests. These tasks include researching and purchasing computer hardware, software and peripherals, furnishing various transportation services for hardware and software releases, providing warehousing services for displaced systems, and maintaining the Configuration Management records for the WPC site.

SSC San Diego C⁴I Programs Office Philadelphia was tasked to provide on-site technical support to the WPC for the Tomahawk Planning System, Precision Targeting Workstation (PTW), and various peripherals. The on-site technician provided a daily maintenance log and submitted system availability data, which is critical to maintenance philosophies. A contingency of this tasking was the opportunity to expand our role by offering and providing assistance in developmental programs. Our availability to assist in "hobby shopping" these experimental systems will expand our presence and provide evidence of our expertise in evolving technologies.

The WPC lab was rearranged to accommodate and to improve the efficiency of operation for the JSIPS-N Concentrator Architecture (JCA) equipment and the new Digital Imagery Work Station (DIWS) ashore workstations. The new arrangement required a complete reconfiguration of the power system. Approximately 1800 feet of cable was installed to provide power for the 120, 208, and 440-volt outlets feeding each system. Two shipments of JCA equipment were delivered to WPC via our warehouse facilities in Philadelphia. Two workstations, two racks, and office furniture were removed from the lab and returned to the Philadelphia facility.

SSC San Diego C⁴I Programs Office Philadelphia personnel spent approximately thirty working days at the planning center in FY99. We attended meetings to discuss and plan the annual acquisition of major equipment. We removed the old Vexcel scanner, and installed and tested the newest version of the scanner. The major event performed this year was the relocation of the entire Sensitive Compartmented Information (SCI) equipment suite and the relocation of the entire General Service (GENSER) suite. We also reran three major LAN networks: TS LAN, SCI LAN, and GENSER LAN.

SSC San Diego C⁴I Programs Office Philadelphia built on-site all the required cables for the relocated equipment and for the LAN. After the equipment was relocated, it all had to be re-cabled and returned to operating status. Implementation enabled the WPC to return to normal operations ahead of schedule.
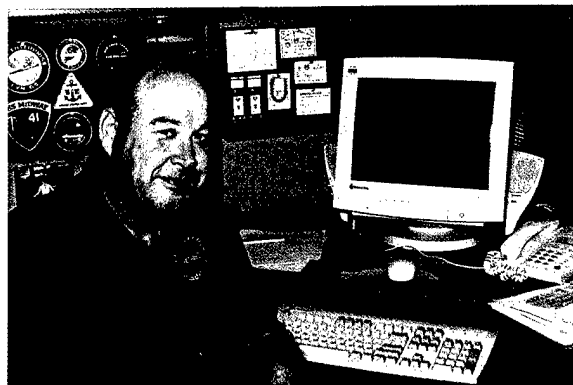
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Ted Morrison, Installation

NAVAL MISSION PLANNING SYSTEMS
(NavMPS)

Role:

+ **Systems Engineering**
+ **Fleet Introduction and Installation**
+ **Installation Planning**
+ **Technical Support Help Desk**
+ **Logistics Management**
+ **Procurement Support**

Naval Mission Planning Systems (NavMPS) is a family of interactive graphic computer systems supporting aircrew mission and strike planning for United States Navy and Marine Corps airborne weapon systems. These systems consist of the Tactical Automated Mission Planning System (TAMPS), the Navy Portable Flight Planning Software (N-PFPS), the Tactical Strike Coordination Manager (TSCM), and the Joint Mission Planning System (JMPS), which is currently in development. TAMPS was first deployed in 1987 at the direction of the Secretary of the Navy. In 1991, TAMPS was established as a program and became PMA-233. In 1999, the Program Office name was changed to Naval Mission Planning Systems to encompass the additional responsibility for other planning applications. With the exception of JMPS, these systems are currently installed onboard aircraft carriers, at shore bases, intelligence centers, weapons schools, and aviation support facilities throughout the world. In FY99, SSC San Diego C⁴I Programs Office Philadelphia continued to support NavMPS by providing engineering, installation, technical assistance, On-the-Job Training (OJT), on-call fleet support, logistics management, and procurement support for all hardware and software versions of the NavMPS family of products.

Addressing the Navy's Y2K requirements, four Fleet Installation Teams (FIT), each consisting of one technician and one applications specialist, began FY 99 with the responsibility for performing TAMPS

Steve Fox, Head, Naval Mission Planning Systems Support Office

Karen Levine, Deputy, Naval Mission Planning Systems Support Office

version 6.2K hardware and/or software upgrades on twelve aircraft carriers and more than 225 Sun Ultra II Portables deployed globally with Navy and Marine Corps squadrons. More than 30 TSCM version 2.3.2K installations were achieved on Sun Ultra II hardware. The carrier installations required a complete hardware change due to the new mission planning local area network (LAN) configuration and functionality occurring simultaneously. The TAMPS 6.2 family of products represents the new generation of TAMPS with long awaited capabilities. The TAMPS 6.2 concept onboard CV/CVNs involves a LAN connecting the CVIC-based Sun E4000 TAMPS Server with as many as forty Ultra II Desktop TAMPS in the squadron ready-rooms. All teams submitted installation documentation in accordance with NAVSEA Technical Specification (NSTS) 9090.310b.

A special edition of the TAMPS 6.1.1 was delivered and installed onboard the French Navy aircraft carrier, the *Charles de Gaulle,* and at the French maintenance facility as part of the Foreign Military Sales (FMS) program at PMA-233. The final training was conducted on-site, and Y2K upgrades were completed. Help desk support has commenced and is scheduled to continue for four years.

The installation of the hardware and software is the framework of the TAMPS program; the training and logistics support is the muscle. SSC San Diego C⁴I Programs Office Philadelphia has not only continued to develop the required standard operational documents, but also developed and distributed Getting Started Charts for each hardware version. SSC San Diego C⁴I Programs Office Philadelphia developed and distributed pocket checklist booklets for mission planners and System Administrator/ Data Base Administrator (SA/DBA) to provide operators with a convenient reference for equipment setup and operation.

All maintenance and user documentation was updated and distributed for the NavMPS products. The TAMPS Interactive Courseware was distributed to give the TAMPS mission planner or SA/DBA on-line manuals, lessons, tutorials, and procedures from a menu on the TAMPS system or on a personal computer. TAMPS 6.2K Training Materials for Mission Planning and System Administration/Data Base Administration were updated and distributed to the schoolhouse. Instructor training for these courses was held in the first quarter FY99. Beginning with TAMPS 6.2, SSC San Diego C⁴I Programs Office Philadelphia is the central distribution point for all TAMPS user documentation, in contrast to each MPM distributing their own.
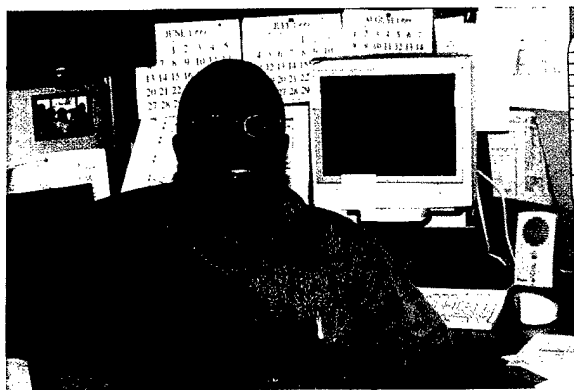
Dave Salmon, Installations
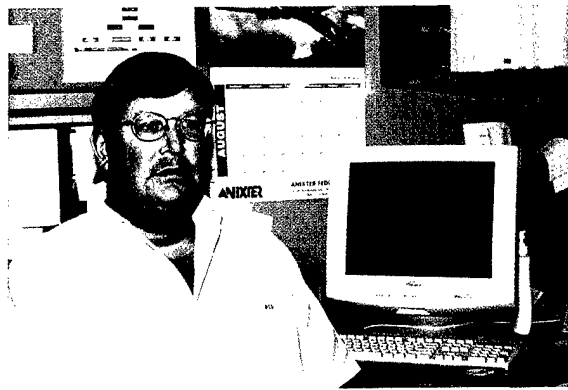
Craig Doster, Product Support

TAMPS 6.2 spares requirements have been procured and are in stock. On Board Repair Part (OBRP) Kits have been procured and distributed to support deployed systems. The Logistics Certification process has been implemented successfully for TAMPS 6.2 installations to ensure delivery of all spare parts and documentation.

SSC San Diego C⁴I Programs Office Philadelphia's training group has coordinated with the TAMPS Model Manager at the Naval Strike and Air Warfare Center (NSAWC), Fallon, Nevada. The training group continues to closely coordinate with the Airwing Operations Officers, including incorporating Automated Mission Planning training into the regularly scheduled Airwing Training conducted at NSAWC. This coordinated effort has helped to familiarize users with our products and the benefits to aircrews. Our goal is to expose air wing personnel to NavMPS early in the pre-deployment work-up cycle. As part of the long-term NavMPS training initiative, we have visited numerous Fleet Replacement Squadrons and Weapons Schools to assess current training efforts and to lay the groundwork for implementing the training policy outlined in the Navy Training Systems Plan.

Naval Portable Flight Planning Software (N-PFPS) Version 3.0.1 with a full complement of Flight Planning Modules (FPM) (fifty percent NATOPS

Chuck Storicks, Product Support

Paul Steinbacher, Product Support

J.C. Fitzgerald, Product Support

Timothy Boyce, Product Support

certified) was distributed. Additional (FPMs) were distributed as they were certified. SSC San Diego C⁴I Programs Office Philadelphia completed the procurement, assembly, testing, and delivery of more than 150 N-PFPS systems. Maintenance plans were defined. A User Logistic Support Summary (ULSS), a User's Manual, and other on-line documentation were developed. On the N-PFPS Dell Laptop, we developed a duplication process using Norton Ghost software.

Logistics support of the TSCM was transitioned to SSC San Diego C⁴I Programs Office Philadelphia. Maintenance plans have been established. Training, documentation, installations, and fleet support have been planned and implemented. TSCM systems have been installed onboard the *USS Bon Homme Richard* and the *USS Essex* for fleet exercises. As the support agency for NavMPS products, SSC San Diego C⁴I Programs Office Philadelphia participated in the JMPS source selection, the Combined Test Force planning, and the Sustainment Tiger Team.

SSC San Diego C⁴I Programs Office Philadelphia Mission Planning System Help Desk continues to provide telephone support and visits to a multitude of sites worldwide, both ashore and afloat. The Help Desk provided technical and repair assistance, training, software and hardware installation, and crossdeck of systems between ships despite the fact that the volume of calls had doubled. The Help Desk

Michael Slough, Product Support

Mary Williams, Product Support

Bob Grant, Fleet Liaison

Beth Ann Miles, Product Support

proofreads new technical manuals and tests new versions of software, as well as the interfaces between NavMPS systems and other systems. We successfully tested the Global Command and Control System – Maritime (GCCS-M)-3.1.1B to TAMPS 6.2K interface.

SSC San Diego C⁴I Programs Office Philadelphia Help Desk personnel were able to assist the *USS Roosevelt* and the *USS Constellation* connect N-PFPS on the IT-21 LAN to communicate with each other. This effort was a prototype for ship-to-ship communication that has worked successfully. We successfully deployed shipriders aboard our carriers, both during deployment and during work-ups, to support all NavMPS systems. These technical representatives have been well received by both the ships' crew and the airwing personnel.

The SSC San Diego C⁴I Programs Office Philadelphia Systems Engineering Team supported the development efforts for PMA-233 products and systems. Support of TAMPS 6.2.X and N-PFPS products constituted the majority of engineering efforts including the selection, integration, testing, documentation, and implementation of CVIC Servers, ATM network, and workstation hardware suites. The shipboard rack configurations and CVIC hardware suites were designed and developed. TAMPS system loading and network performance were tested and evaluated utilizing

Judy Jolly, Product Support
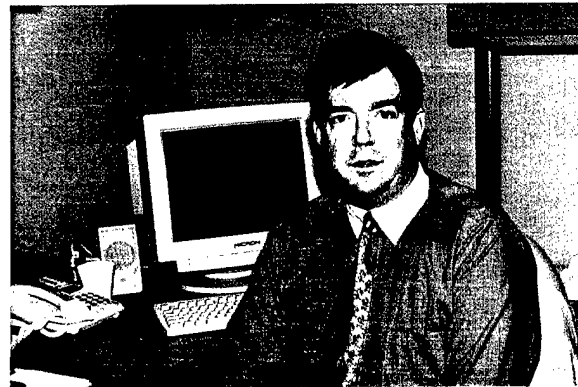
John Sheplock, Product Support

Nhan Nguyen, Engineering

Paul Meisinger, Engineering

the shipboard network and fleet representative hardware systems in the SSC San Diego C⁴I Programs Office Philadelphia laboratory. N-PFPS computer selection, deployment, and certification also are distinct highlights for this year. As NavMPS transitions their System of Applications concept into product development and deployment, SSC San Diego C⁴I Programs Office Philadelphia engineering is positioned to provide the resources and the expertise necessary to succeed in this new, highly integrated, and network-centric COTS environment.

Specific engineering efforts included:

- Coordinated/implemented IT-21 requirements and guidelines into the TAMPS Mission Planning LAN (MPLAN) Network Design.
- Established TAMPS and other NavMPS systems as Programs of Record with the PMA-158 community and coordinated TAMPS/GCCS-M network interconnections with PMW-157.
- Designed and tested MPLAN Xylan switch configuration for the TAMPS 6.2 hardware systems and developed and provided training on Xylan switches to NMITC/*USS Roosevelt* personnel. We developed and maintained TAMPS MPLAN Design Guidelines and Installation Procedures for TAMPS Xylan Switches.
- Designed, developed, and installed MPLAN fiber system for the following locations: *USS Kennedy, USS Constellation,* and *USS Stennis.*
- Installed modified TAMPS network systems at Patuxent River, Maryland, Pt. Mugu, California, and TRW.
- Expanded NMITC/TAMPS ATM network to allow connection to GCCS-M and Secure Internet Protocol Router Network (SIPRNET).
- Supported the installation of the Real-time Execution Decision Support (REDS) system on the *USS Kennedy.*

The SSC San Diego C⁴I Programs Office Philadelphia Systems Engineering Team participated in network certifications and testing. We developed plans and procedures for N-PFPS testing by PMA-158-2 and PMW-157. N-PFPS is now a certified network system. The team submitted the paperwork for additional NavMPS products, including TAMPS. We assisted the Navy Center for Tactical Systems Interoperability (NCTSI) test team in the testing of Meteorological/Oceanographic (METOC) data, and we also
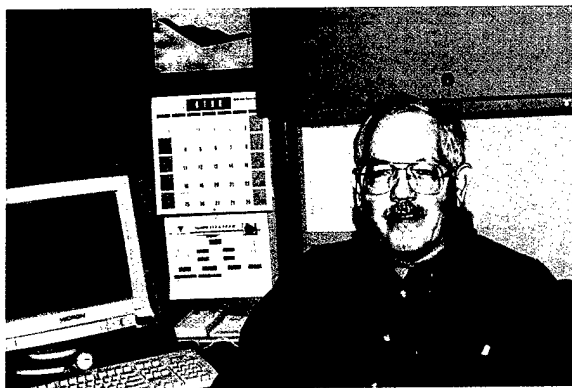
Dennis Klinger, Engineering

Fran Brown, Engineering

coordinated, scheduled, and executed dry runs in preparation for SPAWAR/NCTSI testing of TAMPS message formats.

The SSC San Diego C⁴I Programs Office Philadelphia Systems Engineering Team conducted studies, analyzed, tested, recommended improvements, upgraded, and extended capabilities for the NavMPS products and components including: distributed test approach and network design on the JMPS product; Xerox C55 and NC-60 color printers; SCSI expansion tower; N-PFPS computer selections; and N-PFPS Data Loader selection and packaging. We evaluated and modified the existing CVIC configuration for Special Category Mode and for PC connection to ships' LANs, which includes printer sharing.

Additional tasks included recommending PC X-Server software as a replacement for existing TriTeal software and developing a hardware Statement of Intent/Statement of Requirement (SOI/SOR), which included procedures for dual-homing. We also researched UPS software, Mini-Server and Server Lite configurations, Engineering Change Proposals (ECP), trade studies, and the hardware selection for TAMPS 6.2K. These selections included the Sun Ultra II 1300 and 1400 Replacement Server and Redundant Array of Independent Disks (RAID).

SSC San Diego C⁴I Programs Office Philadelphia developed the schoolhouse network design enhancement, performed X-term testing for multiple network PC workstations, and recommended additional hardware components to be included in the TAMPS 6.2.1 hardware suites. We participated in Reliability and Maintainability (R&M) studies and analysis, which addressed sparing levels and component types for OBRP and Land Based Repairable Parts (LBRP) kits.

Christopher LaBohne, Engineering

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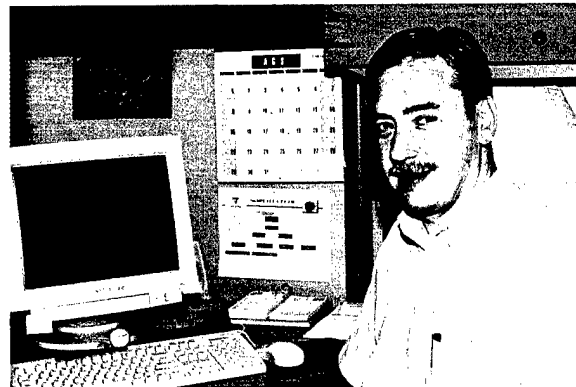SSC San Diego C⁴I Programs Office Philadelphia

and
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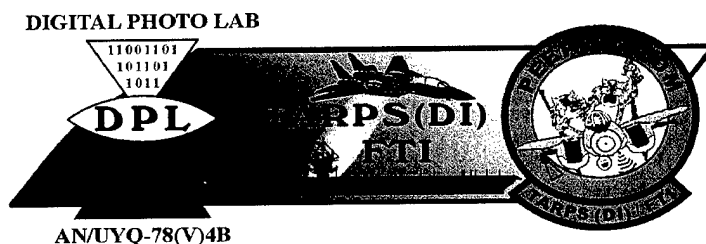Email: levine@spawar.navy.mil
SSC San Diego C⁴I Programs Office Philadelphia

Edward Dolecki, Engineering

DIGITAL CAMERA RECEIVING STATION

Role:

DIGITAL PHOTO LAB

✈ **System Design and Integration**

✈ **Hardware and Software Engineering**

✈ **Procurement Support**

✈ **Documentation**

✈ **Training**

AN/UYQ-78(V)4B

✈ **Life Cycle Support**

✈ **Configuration Management**

The Digital Camera Receiving Station (DCRS) provides a digital photographic and imaging computer workstation under the Commercial-Off-The-Shelf Non-Development Item (COTS NDI) concept. This shipboard mounted workstation evolved from the Hand Held Digital Camera Reconnaissance System (HHDCRS), a portable system fielded in 1995. As the receive element for imagery from the F-14 Tactical Aircraft Reconnaissance Pod System (Digital Imagery) (TARPS(DI)) and F-14 Fast Tactical Imagery (FTI), the DCRS provides near real-time digital imagery downlink capability of manned tactical reconnaissance from the F-14 aircraft. The DCRS also accepts digital photographic files and video inputs from all standard hand held digital cameras and videotape formats. DCRS capabilities include digital photographic manipulation, high resolution video digitizing, National Image Transmission Format (NITF) conversion, Message Text Format (MTF) editor, a shipboard radio communications interface, and a local area network (LAN) interface for imagery dissemination within the carrier based intelligence center (CVIC).

In late FY96, the Program Executive Office for Tactical Aircraft (PEO-T)) PMA-241 tasked SSC San Diego C⁴I Programs Office Philadelphia and the Naval Air Warfare Center - Aircraft Division, Indianapolis (NAWC-AD Indy) to design a near real-time digital imagery capability in the existing TARPS pods and associated F-14 aircraft. Working together, SSC San Diego C⁴I Programs Office Philadelphia developed a prototype shipboard receiving station and NAWC-AD Indy developed a prototype airborne image transmission capability.

In FY97, SSC San Diego C⁴I Programs Office Philadelphia designed, integrated, and built the production version DCRS to include full logistic and documentation support. Functional requirements that resulted from the HHDCRS fleet evaluation were incorporated. Other design and integration efforts allowed the DCRS to interface with existing cryptographic and communications equipment onboard the aircraft carrier to enable the data communications to work effectively. Using the Digital Photo Lab (DPL) architecture as a basis for the workstation reduced the time required for design and development, and reduced the cost for logistics. SSC San Diego C⁴I Programs Office Philadelphia installed the first DCRS onboard the *USS Theodore Roosevelt* (CVN 71) to support VF-32 during deployment. The DCRS performed as designed, and numerous missions were flown successfully. Based on these missions, the Chief of Naval Operations (CNO) N88 identified this program as "urgent and compelling" and formalized it as a modification to operational requirement TW-30. DCRS installations were completed

onboard six additional aircraft carriers and at two shore sites. A Portable DCRS (P-DCRS) was developed and fielded for the USMC Highly Mobile Multi-Wheeled Vehicle (HMMWV). In April 1997, CNO N88 hosted a TARPS(DI) and DCRS demonstration with several reconnaissance flights over the Pentagon. This highly successful demonstration resulted in the formal announcement of Initial Operational Capability (IOC) for TARPS(DI) and DCRS.

During FY98, SSC San Diego C⁴I Programs Office Philadelphia performed five aircraft carrier DCRS installations, thus completing all active aircraft carriers. Design improvements incorporated new technology, the transition to compliance for Y2K and IT-21 requirements. An interface was established with the Global Command and Control System – Maritime (GCCS-M) system to allow rapid movement of imagery to the JOTS14 workstation. IT-21 upgrades were installed in six aircraft carrier DCRS systems. The P-DCRS design was modified for deployable squadron use. A new program effort, Fast Tactical Imagery (FTI), was initiated to allow the transmission of imagery from the Low Altitude Navigation and Targeting Infrared for Night System-Forward Looking Infrared Imager (LANTIRN-FLIR).

In FY99, SSC San Diego C⁴I Programs Office Philadelphia performed one aircraft carrier DCRS installation onboard a newly constructed ship. Six aircraft carrier and two shore site DCRS systems were upgraded for Y2K compliance. FTI and Y2K upgrades were installed in twelve aircraft carrier and two shore site DCRS systems. Four P-DCRS systems were built and fielded. One P-DCRS was modified and installed onboard the *USS Coronado* (AGF 11) to support Fleet Battle Experiment - Echo. Support was provided to the Sea Control Wing, Atlantic for a new long range standoff imaging capability, Organic Digital Imagery Now (ODIN), using S-3 aircraft. Several missions were supported with ODIN imagery successfully transmitting to the DCRS onboard the *USS Dwight D Eisenhower* (CVN 69) during exercises.

SSC San Diego C⁴I Programs Office Philadelphia supported PEO-T PMA-241 at System Architecture Requirement and System Architecture Working Group meetings for TARPS(DI), FTI, and DCRS imagery requirements for the Naval Strike Warfare Planning System. Thirty telephone assistance requests, seventeen on-site technical support requests, three Combat Systems Readiness Reviews (CSRR), one Combat System Pre-Acceptance Test (CSPAT), and one Casualty Report (CASREP) were resolved.

SSC San Diego C⁴I Programs Office Philadelphia provides a full range of services including design, development, customization of hardware and software, system integration, installation, training, technical support, and life cycle management for the DCRS and airborne digital cameras and sensors.

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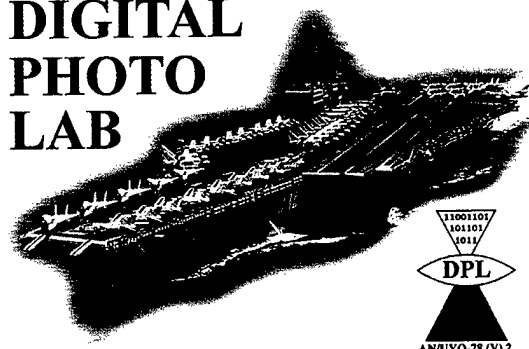SSC San Diego C4I Programs Office Philadelphia

*Tim Urbanski, Head,
Imagery Support Office*

DIGITAL PHOTO LAB AN/UYQ-78(V)

Role:

✈   **System Design and Integration**
✈   **Hardware and Software Engineering**
✈   **Procurement Support**
✈   **Documentation Preparation**
✈   **System Training**
✈   **Life Cycle Support**
✈   **Configuration Management**

The Digital Photo Lab (DPL) AN/UYQ-78(V) program provides a computerized digital photography suite of equipment using the COTS NDI concept. The DPL allows a full range of digital photographic processes and the interchange of digital photographic files with other shipboard and combat camera systems. This program offers the benefits of modern state-of-the-art computer technology which improves the way the U.S. Navy produces imagery by enhancing Visual Information, Public Affairs Office, Surface Surveillance Contact, and other photographic techniques. An additional benefit of this program is the reduction of shipboard photo chemical overboard discharge to assist in fleet compliance with Environmental Protection Agency regulations. Use of the DPL allows photo production to continue while in port, in non-discharge zones, or in remote locations that have limited fresh water. The DPL program is divided into distinct phases to allow a multi-level approach to the conversion of existing wet-chemical photo labs with the flexibility to provide different configurations of the DPL for various classes of U.S. Navy vessels.

The DPL program began in FY94 when SSC San Diego C^4I Programs Office Philadelphia personnel designed the DPL system to be shipboard-mounted with full observance of human engineering factors, mechanical shock and vibration, electrical safety, and equipment protection while optimizing functionality and versatility. Working with NAVSEA PMS-312, the production version DPL AN/UYQ-78(V)1 was authorized for installation under SHIPALT 8424K (CV) and 8425K (CVN). DPL AN/UYQ-78(V)1 systems were installed onboard all twelve active CV/CVN class aircraft carriers. Full logistic support was developed and provided. A collateral program included the design and fielding of the Hand Held Digital Camera Reconnaissance System (HHDCRS) for fleet evaluation within the F-14 A/B/D Tactical Aircraft.

An improved DPL Engineering Development Model (EDM) was developed to accommodate new technology and compliance for Y2K and IT-21 requirements. As the DPL EDM system matured into the AN/UYQ-78(V)1B-1C-2A versions, NAVSEA PMS-377 authorized the DPL AN/UYQ-78(V)1C installation under SHIPALT 253K (LHD). DPL AN/UYQ-78(V)1C systems were installed onboard the *USS Boxer* (LHD 4), *USS Bataan* (LHD 5), and *USS Bonhomme Richard* (LHD 6).

In FY99, SSC San Diego C⁴I Programs Office Philadelphia continued as the Cognizant Field Activity (CFA) and Life Cycle Manager (LCM) for DPL systems installed in the fleet. The DPL systems onboard the *USS Kitty Hawk* (CV 63), *USS Constellation* (CV 64), *USS Enterprise* (CVN 65), *USS Theodore Roosevelt* (CVN 71), *USS Abraham Lincoln* (CVN 72), *USS George Washington* (CVN 73), and *USS John C Stennis* (CVN 74) were upgraded to the DPL AN/UYQ-78(V)1B/U. The DPL systems onboard the *USS John F Kennedy* (CV 67), *USS Dwight D Eisenhower* (CVN 69), and *USS Harry S Truman* (CVN 75) were upgraded to the DPL AN/UYQ-78(V)2A/U. The DPL system onboard the *USS Boxer* (LHD 4) was upgraded to the DPL AN/UYQ-78(V)1C/U.

An EDM of the Next Generation DPL, the DPL AN/UYQ-78(V)3, was developed to bring together the complete workflow process in the CV/CVN photo labs. This system encompasses six workstations, a dedicated high-speed photo LAN, and digital non-linear video editing capabilities.

SSC San Diego C⁴I Programs Office Philadelphia supported meetings with NAVSEA PMS-312 and PMS-377, PEO(T) PMA-241, and CNO N09C4. Thirty-six telephone assistance requests, nine on-site technical support requests, three Combat Systems Readiness Reviews (CSRR), one Combat System Pre-Acceptance Test (CSPAT), and one Casualty Report (CASREP) were handled. Operator and maintainer training curriculums were modified for implementation through the Chief of Naval Education and Training (CNET) schools.

SSC San Diego C⁴I Programs Office Philadelphia provides a complete range of services including design, development, customizing hardware and software, system integration, installation, training, technical support, and life cycle management for the Digital Photo Lab system, digital hand-held cameras, and digital photographic production techniques.

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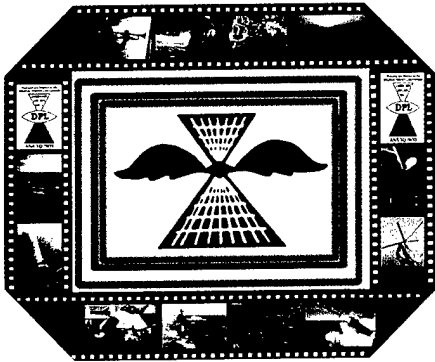SSC San Diego C⁴I Programs Office Philadelphia

Vincent DiCristofaro, Deputy and Engineering

Anthony Brancato, Engineering

FLEET PHOTO SUPPORT

Role:

✈ **Engineering and Design Support**
✈ **Acquisition Support**
✈ **Integrated Logistics Support**
✈ **Fleet Support**

The Fleet Photo Support project provides support for conventional wet-chemistry photo labs onboard naval vessels. SSC San Diego C⁴I Programs Office Philadelphia supports new construction and existing sites with engineering, design, acquisition, integrated logistics, and on-site technical support. During FY99, new ship construction support was provided to NAVSEA PMS-312 and NAVSEA PMS-377. Engineering and design meetings were attended to identify replacement items for obsolete legacy equipment. Acquisition of Schedule "A" equipment, logistic item development, installation, testing and certification, and training services were provided to update the photo labs onboard the *USS Harry S Truman* (CVN 75) and the *USS BonHomme Richard* (LHD 6).

Integration of the conventional wet- chemistry photo processors with the Digital Photo Lab (DPL) LAN was accomplished onboard the *USS John F Kennedy* (CV 67) and *USS Dwight D Eisenhower* (CVN 69). Design and engineering support was provided for the reconfiguration of the CVIC photo lab onboard the *USS Nimitz* (CVN 68) and *USS Dwight D Eisenhower* (CVN 69) to support the Naval Strike Warfare Planning Center. On-site technical support was provided for EH-38D processors and other Tactical Aircraft Reconnaissance Pod System (TARPS) film processing equipment onboard four US Navy aircraft carriers. Two Combat Systems Readiness Reviews (CSRR) were performed, and one Casualty Report (CASREP) was satisfied.

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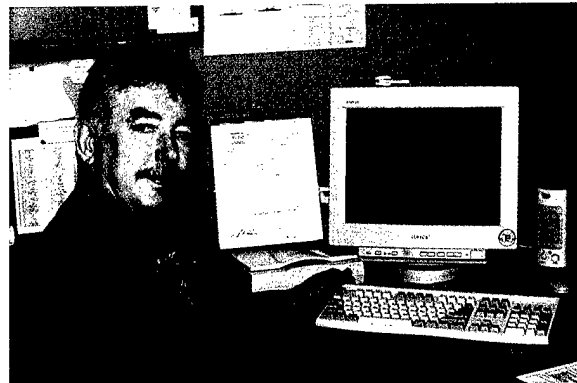
Dennis Lloyd, Installation and Product Support Team Leader

Charles Soule, Installation and Product Support

ANALYTICAL PHOTOGRAMMETRIC POSITIONING SYSTEM (APPS)

Role:

✈ **Depot Maintenance**
✈ **Inter-Service Support**
✈ **Configuration Management**
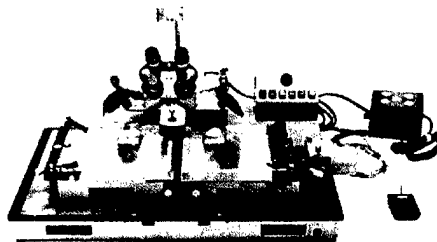
The Analytical Photogrammetric Positioning System (APPS) is a stand-alone transportable light table and stereoscopic viewing system. The APPS utilizes prepared hard copy imagery and supporting Point Positioning Data Bases (PPDB) to provide precision mensuration data consisting of geographic position, datum conversions, distances, angular displacement, heights, and elevation from features shown on the imagery. The derived data are used for mission planning.

SSC San Diego C⁴I Programs Office Philadelphia is the APPS Depot Maintenance Inter-Service Agreement (DMISA) agent providing on-site and depot level service for approximately fifty-six units used by the USAF and the USN.

During FY99, the majority of the APPS service was provided to the USAF. On-site technical support was provided at thirteen USAF CONUS sites, seventeen USAF overseas sites, and one USN shore site.

The DMISA contract was reviewed, and the terms and conditions were revalidated. During this process, the USAF asked for testing, validation, and necessary corrective action for APPS functionality with the Y2K transition. The APPS DMISA contract will be continued until the transition to digital imagery and support data is complete.

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Eddie Smith, Product Support

IMAGE PRODUCT LIBRARY (IPL)

ROLE:

+ **Installation**
+ **Customer Support**
+ **Hardware Engineering**
+ **System Acquisition**
+ **System Assembly, Configuration, Integration, Installation**
+ **Logistics Support**
+ **Training**
+ **Configuration Management**
+ **Life Cycle Support**
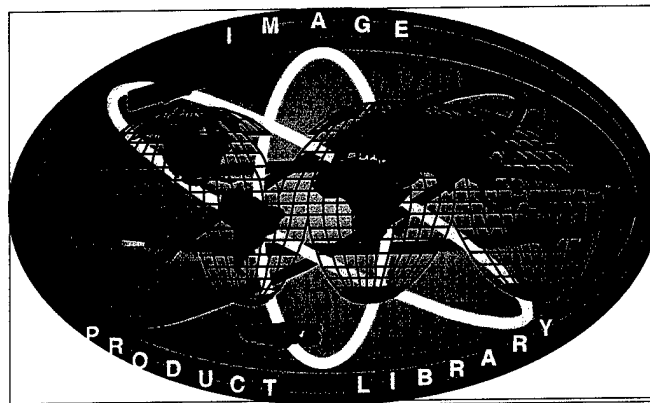
The Image Product Archive/Image Product Library (IPA/IPL) program is a DoD initiative sponsored by the National Imagery and Mapping Agency (NIMA) to develop the standard United States Imagery System (USIS) product archives system. This system is part of NIMA's Pilot Accelerated Architecture Acquisition Initiative (A^3I) for enhanced digital imagery request, distribution, and management for all echelons within the National and DoD Imagery Intelligence (IMINT) community. The objective of the Pilot A^3I is to quickly transition enhanced capabilities to the field that will form the basis for the USIS architecture of the future.

The IPL provides the capability to supply image products to intelligence analyst users and non-intelligence users from assets at selected IMINT production centers. The IPL provides browser capability to query image product holdings at the IMINT production center and/or other IPLs to determine what image products are available to satisfy the user's needs. The users select an image product, indicate transfer parameters, which influence image product format and compression ratio, and request transfer of the product. The IPL browser workstation then receives the image product and notifies the user that the

Vivian DiCristofaro, Head, National Imagery & Mapping Agency Support Office

Frank Greco, Deputy and Installation Team Lead

image product is available. The IPL also provides the capability to receive image products in either National Imagery Transmission Format (NITF) or selected non-NITF formats and enter them into the Image Product Database. The IPL manager has functions available for database maintenance and management.

IPL provides the imagery community with improved accessibility, operational support, and distribution of geospatial and imagery products. To achieve this support, IPL automated the following activities:

- Query image product holdings from multiple sources,
- Receive imagery and/or image products from multiple sources,
- Maintain a database of imagery and/or image products,
- Transfer imagery and/or image products to imagery clients from imagery sources,
- Transfer imagery and/or image products to remote locations using several formats and compression ratios.

IPL provides the server software necessary to implement the IPL mission. IPL supports client searches/requests for applicable imagery and image products, and provides information on the status of request/transfers. IPL interfaces with other imagery sources (IESS, 5D, etc.) to enable the client to conduct queries of imagery holdings and requests, and subsequently receive the imagery.

SSC San Diego C^{4}I Programs Office Philadelphia's involvement in the IPL program began in January 1997 with the receipt of our initial funding from the NIMA program office. During FY99, SSC San Diego C^{4}I Programs Office Philadelphia received continued tasking to execute the efforts necessary to initiate and maintain IPL in the field.

SSC San Diego C^{4}I Programs Office Philadelphia provided Site Introduction Teams to install the IPL software at sites located in both CONUS and abroad. These teams performed site surveys, delivered and installed Sybase database management software and IPL software to site equipment, maintained license tracking, configured site systems to support specialized end user requirements, and migrated site imagery databases to the IPL environment. Site Introduction Teams also provided on-the-job training
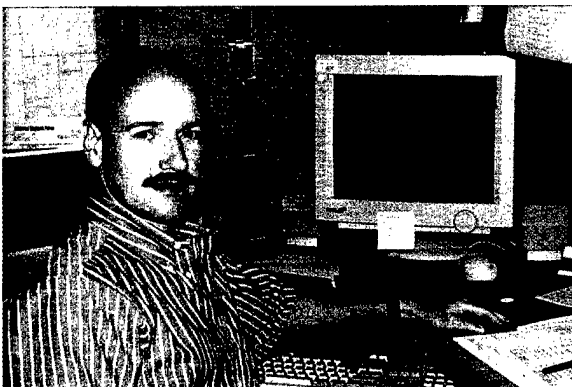
Robert Mullen, Engineering Team Lead

Peter Di Pasquale, Product Support Team Lead

for IPL operators, delivered supporting documentation required by the site for IPL use/support, reported observed IPL and/or site problems and discrepancies, and reproduced deliverable software from master electronic media. In addition, the teams provided technical support to sites and the help desk, supported site security certification, and provided shipboard installation planning and coordination. During FY99, the Site Introduction Teams performed 33 IPL on-site system software installations. The teams also performed site acceptance testing, and provided training and technical support.

Our Hardware/COTS Software Engineering Team provided hardware-engineering support to the IPL program during FY99. This effort included hardware definition, COTS software definition, requirements definition, installation guidance package planning, site checks, and system installation parameter definition. Along with the support of our resource management personnel, this team provided procurement support to the Sponsor for the acquisition of hardware and COTS software and licenses for the IPL program. The team performed the tasks necessary to cost, purchase, track, and warehouse the Non-Development Item (NDI) system components identified by the IPL program. SSC San Diego C⁴I Programs Office Philadelphia also performed hardware assembly, configuration, and integration; system and program software installation; software/hardware integration; IPL system testing prior to field introduction; and equipment receipt, inventory, storage, packaging for shipment, and shipping to the site.

During FY99, SSC San Diego C⁴I Programs Office Philadelphia procured 57 complete IPL systems in either a medium configuration (Sun 4500) or a small configuration (Sun E450). We placed a total of 325 procurement actions in support of IPL programs. During the year, we also assembled, configured, integrated, shipped, and installed 43 systems from FY98 and FY99 procurements. Fourteen of the installations were performed on Navy vessels and 29 at land based sites supporting Common Imagery Ground Station Surface (CIGSS) and Joint Task Force (JTF) tasking.

SSC San Diego C⁴I Programs Office Philadelphia provided Logistics Support for IPL including documentation generation and assessment (logistics planning, training, certification, testing, user documents), and sparing assessment for hardware acquisitions. The Logistics Team also supported
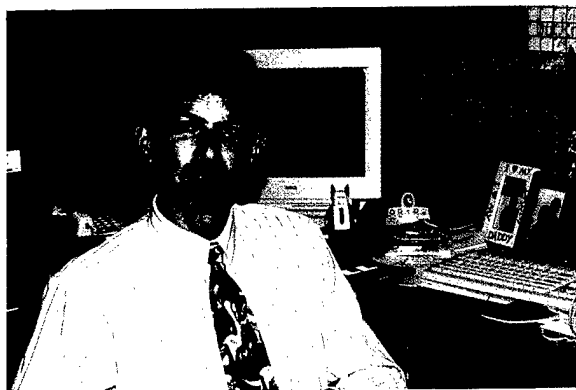
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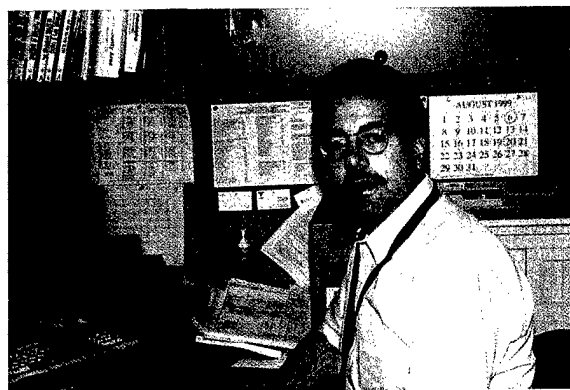
Joel Cohen, Engineering

System Configuration Management and Tracking by providing hardware and software status accounting of user sites, and inventorying and tracking IPL hardware and software acquisitions in the CM database.

SSC San Diego C⁴I Programs Office Philadelphia provided interim support for IPL elements not covered by extended warranty or service agreement and set up and maintained our interim depot; failure tracking and analysis; and hardware technical support for this effort. We also established an IPL spares depot at FedEx (Memphis, Tennessee) in conjunction with the Joint Service Imagery Processing System – Navy (JSIPS-N) program depot to provide integrated JSIPS-N/IPL Navy Logistics support. We developed the Navy's spares and documentation requirements for shipboard systems, and we purchased and delivered the pack-up kits to the ships in support of the PMA-281 Integrated Logistics Support (ILS) certification program.

SSC San Diego C⁴I Programs Office Philadelphia provided IPL technical support during FY99 for ACOM Y2K testing, JCA developmental testing, IPL Versions 2.0 and 2.1 acceptance testing, and Dissemination Element/Softcopy Exploitation Management (DE/SEM) Interface testing.
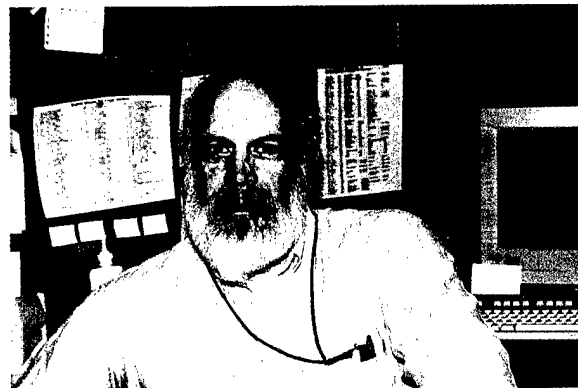
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Lou DiGirolamo, Engineering

Robert Overholt, Installation

Robert Flipse, Installation

Joint Service Imagery Processing System – Navy (JSIPS-N) Concentrator Architecture (JCA)

ROLE:
+ **Procurement**
+ **Installation**
+ **Support for JCA Developmental Testing**
+ **Incorporation of JCA Elements into JSIPS-N Logistics Support**

The Joint Service Imagery Processing System – Navy (JSIPS-N) Concentrator Architecture (JCA) is comprised of a Navy controlled clearinghouse, which receives and disseminates imagery, and operational naval sites using the imagery received via the JCA. The JCA includes all operational naval units and shore sites considered capable of operating within the JSIPS-N program, as well as a primary Concentrator located at the Office of Naval Intelligence (ONI) and a backup Concentrator at the Washington Planning Center (WPC). The principal users of the JCA are the ships and shore activities that rely on the use of imagery and imagery products to conduct their missions. The JCA also affects the tactical operational community members that are involved in strike planning. The JCA is designed to evolve with the imagery community into the US Imagery and Geospatial Information System (USIGS) architecture that will benefit from the use of common client systems to access imagery and imagery products.

The JCA consists of four system components including the Sources, the Concentrator, the Sites, and the Communications among the other three components. The Sources include the Enhanced Processing Segment (EPS) and theater, tactical and other commercial and government imagery, and imagery product sources. The Concentrator is essentially the gateway between the Sites and the Sources; data is collected and/or generated, stored and retrieved by profile or request, and disseminated electronically. The Sites include ships with bandwidth allocated for imagery dissemination, Rapid Deployment Suites (RDS) and other shore sites such as the WPC, the Naval Strike and Air Warfare Center (NSAWC), and the Navy and Marine Corps Intelligence Training Center (NMITC).

The JCA is designed to provide both a reliable system to support several user requirements and a centralized storage archive of imagery and imagery products in a common format. The JCA supports the present National Input Segment (NIS) capabilities in existence for national imagery to include the national imagery dissemination timeline requirements. The JCA is automated whenever possible to provide electronic transfer of data to other systems and sites and to improve communications utilization. The JCA enables all deploying units to access near real-time imagery and products, to access geospatial products, to plan missions successfully, and to support intelligence using mission essential imagery.

SSC San Diego C⁴I Programs Office Philadelphia's involvement in the JCA program began in FY98 with the receipt of initial funding from the PMA-281 program office and continued throughout FY99. Our primary role in support of the JCA is the procurement of the JCA commercial hardware and software based on the requirements established by the system's architect. Procurement includes ordering the hardware and software, monitoring and tracking the status for all procurements, receipt and inventory of all components ordered for the JCA, and delivery to the end site for installation. In addition to our acquisition role, we are also supporting the JCA by installating the Image Product Library (IPL) at the primary and backup Concentrator sites as well as at operational user sites including ships and shore

based sites. Our team also provides technical support to groom, operate, repair, and test components of the JCA as part of the JCA developmental test team. The logistics support for the JCA is incorporated into the JSIPS-N logistics support architecture managed under the Cruise Missile Program Office.

During FY99, the final requirements for the primary Concentrator were identified, ordered, and delivered. The Back-up Concentrator requirements identification, ordering, and delivery were also completed. The JCA acquisition team executed a total of 40 different acquisition actions to cover the effort.

SSC San Diego C⁴I Programs Office Philadelphia also supported the JCA with system engineering for the IPL systems for both afloat and ashore sites. We performed hardware acquisition and integration, software installation, site delivery and installation support, and on-site training. During FY99, we delivered shipboard configured systems to the *USS Truman, USS Eisenhower, USS Mount Whitney, USS Stennis, USS Essex, USS Bon Homme Richard, USS Wasp, USS George Washington, USS Saipan, USS Lincoln,* and NMITC. We provided enhancements to the WPC hardware and upgraded the ONI, WPC, and *USS Coronado* software to version 2.0, and subsequently, to version 2.1 to support test requirements.

Logistics support for JCA is being developed in accordance with the JCA Concept of Operations. During FY99, the process of incorporating the JCA into the overall JSIPS-N logistics program continued. JCA Customer Support has been included as part of the JSIPS-N Help Desk 7-day/24-hour "one stop" ashore and afloat support. The JCA afloat maintenance was integrated with the JSIPS-N sparing philosophy under FedEx premium service. Ashore maintenance is covered by three-year extended vendor warranties purchased as part of the initial acquisition packages.

Configuration management (CM) tracking of hardware components is being incorporated under the CM Stat system. All JCA acquisitions received during FY99 have been inventoried as part of this tracking system. Training for JCA is integrated as a block in the Dissemination Manager's training. Documentation for JCA is incorporated into the logistics certification process for JSIPS-N and is integrated into the streamlined documentation approach for afloat systems.

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GLOSSARY OF ACRONYMS

A³I	Accelerated Architecture Acquisition Initiative
AIS	Automated Information Systems
AOR	Areas of Responsibility
AOSD	APS Operations Support Detachment
APPS	Analytical Photogrammetric Positioning System
APS	Afloat Planning System
APS/RDS	Afloat Planning System/Rapid Deployment Suite
ASU	American Service Unit
ATM	Asynchronous Transfer Mode
BPA	Basic Purchasing Agreement
BF	Battle Force
BG	Battle Group
C²	Configuration Consolidation
C⁴I	Command, Control, Communications, Computers, and Intelligence
CAOP	Common Action Observation Points
CASREP	Casualty Report
CBT	Computer Based Training
CD-ROM	Compact Disk Read Only Memory
CFA	Cognizant Field Activity
CHBDL	Common High Bandwidth Data Link
CIGSS	Common Imagery Ground Station Surface
CINCLANTFLT	Commander In Chief, Atlantic Fleet
CINCPACFLT	Commander In Chief, Pacific Fleet
CM	Configuration Management
CMSA	Cruise Missile Support Activity
CMSALANT	Cruise Missile Support Activity, Atlantic
CMSAPAC	Cruise Missile Support Activity, Pacific
CNET	Chief of Naval Education and Training
CNO	Chief of Naval Operations
COMFIFTHFLT	Commander, U.S. Fifth Fleet
COMNAVAIRLANT	Commander, Naval Air Force, Atlantic Fleet
COMNAVAIRPAC	Commander, Naval Air Force, Pacific Fleet
COMNAVSURFLANT	Commander, Naval Surface Force, Atlantic Fleet
COMNAVSURFPAC	Commander, Naval Surface Force, Pacific Fleet
COMSUBLANT	Commander, Submarine Force, Atlantic Fleet
COMSUBPAC	Commander, Submarine Force, Pacific Fleet
COMUSNAVCENT	Commander, U.S. Naval Forces Central Command, Forward, Manama, Bahrain
CONUS	Continental United States
COR	Contracting Officer's Representative
COTS	Commercial Off-the-Shelf
COTS NDI	Commercial Off-the-Shelf Non Development Item
CRLCMP	Computer Resources Life Cycle Management Plan
CSMA	Cruise Missile Support Activity
CSMO	Combat Systems Materials Officer
CSPAT	Combat System Pre-Acceptance Test
CSR	Customer Service Representative

CSRR	Combat Systems Readiness Review
CV	Aircraft Carrier
CVIC	Aircraft Carrier Intelligence Center
CVN	Aircraft Carrier Nuclear
DBA	Data Base Administrator
DCID	Director of Central Intelligence Directive
DCRS	Digital Camera Receiving Station
DE/SEMI	Dissemination Element/Softcopy Exploitation Management Interface
DIA	Defense Intelligence Agency
DISC	Defense Industrial Support Center
DIWS	Digital Imagery Work Station
DIWS-A	Digital Imagery Work Station, Afloat
DLA	Defense Logistics Agency
DLN	Discrepancy Lifecycle Network
DMISA	Depot Maintenance Inter-Service Agreement
DoD	Department of Defense
DPL	Digital Photo Lab
ECP	Engineering Change Proposal
ECU	Environmental Control Unit
EDM	Engineering Development Model
EMI	Electromagnetic Interference
EPS	Enhanced Processing Segment
ESC	Electronic Systems Command
ESIS	Enhanced Sensitive Compartmented Information (SCI) Isolation Segment
ETEPP	Electronic Tomahawk Employment Planning Package
FBE	Fleet Battlelab Experiment
FedEx	Federal Express
FISC	Fleet and Industrial Supply Center
FIT	Fleet Installation Team
FPM	Flight Planning Module
FTI	Fast Tactical Imagery
FY	Fiscal Year
GCCS-M	Global Command and Control System – Maritime
GENSER	General Service
GFCP	Generic Front-end Communications Processor
GLCM	Ground Launch Cruise Missile
HCI	Human Computer Interface
HHDCRS	Hand Held Digital Camera Receiving System
HMMWV	Highly Mobile Multiple Wheeled Vehicle
ICD	Installation Control Drawings
IDIQ	Indefinite Delivery / Indefinite Quantity
IDS	Intrusion Detection System
IESS	Imagery Exploitation Support System
ILS	Integrated Logistics Support

IOC	Initial Operational Capability
IMINT	Imagery Intelligence
IMPAC	International Merchant Purchase Authorization Card
INSURV	Inspection and Survey
IPA	Image Product Archive
IPL	Image Product Library
IPR	In-Progress Review
IPT	Integrated Process Team
ISEA	In-Service Engineering Agency
IT-21	Information Technology for the 21st Century
JCA	JSIPS-N Concentrator Architecture
JMCIS	Joint Maritime Command Information System
JMOCC	Joint Mobile Operational Command Center
JMPS	Joint Mission Planning System
JOTS	Joint Operational Tactical System
JSIPS-N	Joint Service Imagery Processing System – Navy
JTF	Joint Task Force
LAN	Local Area Network
LANTIRN-FLIR	Low Altitude Navigation and Targeting Infrared for Night System-Forward Looking Infrared Imager
LBRP	Land Based Repairable Parts
LCM	Life Cycle Manager
LPMP	Launch Platform Mission Planning
LRU	Lowest Replaceable Unit
LSL	Logistics Support Library
LST	Logistics Support Terminal
MDS	Mission Distribution System
MDU	Mission Data Update
METOC	Meteorological/Oceanographic
MILSPEC	Military Specification
MILSTRIP	Military Standard Requisition and Issue Procedures
MML	Master Mission Library
MOA	Memorandum of Agreement
MPLAN	Mission Planning LAN
MPM	Mission Planning Module
MTF	Message Text Format
MTT	Mobile Team Training
NAVAIR	Naval Air Systems Command
NAVICP	Naval Inventory Control Point
NavMPS	Naval Mission Planning System
NAVSEA	Naval Sea Systems Command
NAWC-AD	Naval Air Warfare Center – Aircraft Division
NCTSI	Navy Center for Tactical Systems Interoperability
NDI	Non-Development Item
NIMA	National Imagery and Mapping Agency
NIS (DE)	National Input Segment, Dissemination Element
NIS (RE)	National Input Segment, Receive Element
NITF	National Imagery Transmission Format
NMITC	Navy and Marine Corps Intelligence Training Center

N-PFPS	Naval Portable Flight Planning Software
NSAWC	Naval Strike and Air Warfare Center
NSSP	Naval Support Station Philadelphia
NSTS	Naval Sea Technical Specification
NSWC	Naval Surface Warfare Center
NSWPC	Naval Strike Warfare Planning Center
O&M	Operations and Maintenance
OBRP	On Board Repair Part
ODIN	Organic Digital Imagery Now
OJT	On-the-Job Training
OLPST	On-Line Performance Support Tools
ONI	Office of Naval Intelligence
OT	Operational Test
P-DCRS	Portable Digital Camera Receiving Station
PEO(CU)	Program Executive Officer Cruise Missiles Project and Unmanned Aerial Vehicles Joint Project
PEO(T)	Program Executive Officer for Tactical Aircraft
PFPS	Portable Flight Planning Software
PMA	Program Manager for Aircraft
PMR	Program Management Review
PPDB	Point Positioning Data Base
PPM	Pre-Planned Missions
PTD	Provisioning Technical Documentation
PTW	Precision Targeting Workstation
PUK	Pack-Up Kit
R&M	Reliability and Maintainability
RAIDS	Redundant Array of Independent Disks
RDS	Rapid Deployment Suite
REDS	Real-time Execution Decision Support
ROICC	Resident Officer in Charge of Construction
RTIC	Real Time Information to Cockpit
SA	System Administrator
SAP	Special Access Program
SAT	System Acceptance Testing
SCIF	Sensitive Compartmented Information Facility
SDX	Secure Data Transfer
SID	Ships Installation Drawing
SIPRNET	Secure Internet Protocol Router Network
SOI	Statement of Intent
SOM	System Operator's Manual
SOR	Statement of Requirement
SOVT	System Operational Verification Test
SSC	SPAWAR Systems Center
STRH	System Technical Reference Handbook
STU-III	Secure Telephone Unit Third Generation
SUPPO	Supply Officer
SWATSLANT	Strike Warfare and Tactics School, Atlantic

TACTRAGRU LANT	Tactical Training Group, Atlantic
TACTRAGRU PAC	Tactical Training Group, Pacific
TAMPS	Tactical Aircraft Mission Planning System
TARPS	Tactical Air Reconnaissance Pod System
TCS	Tape Copy System
TEMPEST	Transient Electromagnetic Pulse Emanation Standard
TIS	Tactical Input Segment
TLAM	Tomahawk Land Attack Missile
TMPC	Tomahawk Mission Planning Center
TMPS	Tactical Mission Planning System
TOA	Total Obligating Authority
TPSA	TLAM Planning System Afloat
TQM	Total Quality Management
TSCM	Tactical Strike Coordination Manager
	Tomahawk Strike Coordination Module
ULSS	User Logistic Support Summary
USAF	United States Air Force
USIGS	U.S. Imagery and Geospatial Information System
USCINCPAC CMD CTR	U.S. Commander-in-Chief, Pacific Command Center
USIS	U.S. Imagery System
USMC	United States Marine Corps
USN	United States Navy
WPC	Washington Planning Center
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SSC San Diego C^{4}I Programs Office Philadelphia is responsible for a program of development, in-service engineering, procurement, installation support, configuration control, and integrated logistics support for shipboard and shore-based Command, Control, Communications, Computer and Intelligence (C^{4}I) Systems, mission planning systems, and electronic photographic processing systems. SSC San Diego C^{4}I Programs Office Philadelphia provides technical support to the Naval Air Systems Command, Naval Electronic Logistics Office, Naval Sea Systems Command (PMS-312/PMS-377), and the National Imagery and Mapping Agency. Headed by a Civilian Manager, SSC San Diego C^{4}I Programs Office Philadelphia is comprised of 62 civilians including Engineers, Computer Specialists, Intelligence Operations Specialists, Technicians, Logisticians, and Management Support personnel, practicing Total Quality Management and ensuring the Quality Process is routinely used. Engineering and Technical Support is provided by 165 contractor personnel. This report cites awards and recognition received by SSC San Diego C^{4}I Programs Office Philadelphia during Fiscal Year 1999.

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